LITERARY ART AND MODERN EDUCATION

Digitized by the Internet Archive
in 2025

https://archive.org/details/literaryartmoder0000fran

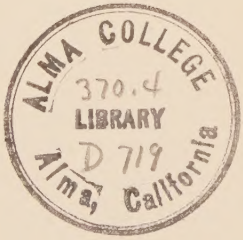
370.4

LITERARY ART AND MODERN EDUCATION

BY

FRANCIS P. DONNELLY, S.J.

AUTHOR OF ART PRINCIPLES IN LITERATURE,
THE ART OF INTERESTING, ETC.



P. J. KENEDY & SONS
NEW YORK

18101

COPYRIGHT, 1927, BY
P. J. KENEDY & SONS
NEW YORK

PRINTED IN THE UNITED STATES OF AMERICA

ART, EDUCATION AND FACULTIES

The Unifying Principles of the Book

ART, EDUCATION AND FACULTIES

The Unifying Principles of the Book

In an epistolary controversy about mental tests the writer of this book modestly declared that he was trying to understand what tests really meant and what they actually tested. My opponent countered, not without some scorn, that I should find out what tests meant before I discussed them in public. Well, at that time, I had read a score of articles and books on tests, and since, I have read other writers, and I still honestly but reluctantly confess that I have not arrived at a full understanding of mental tests. Dr. Edward Lee Thorndike of Columbia University, one of the leaders in the test movement, gives me consolation in my ignorance. In the *Encyclopedia Britannica,* 13th Edition, Intelligence Tests, writes Dr. Thorndike, "Just what the tests measure is not known; how far it is justifiable to treat the scores by ordinary arithmetic is not known; just what the scores signify concerning intelligence in general is in dispute." He continues to list deficiencies which he hopes further research may do away with. In simplest things there is the profoundest philosophy as Tennyson told us of the flower he plucked from the crannies in the wall.

I hold you here, root and all, in my hand,
Little flower—but if I could understand
What you are root and all, and all in all,
I should know what God and man is.

Ever since Socrates started what a student called the first instance of the "third degree" and endeavored to bring ideas out of their nebulous state by giving clear-cut significance to popular words, definition has been the goal of all science. Art and education are two popular words that figure prominently in the present work. Their definition, as the definition of all else, presupposes or initiates a philosophy, and for those who are trying to keep heads steady amid the wild and whirling words of modern theorists, I shall state a few general principles which give some unity to this book, a unity which at first sight of chapters and contents might seem conspicuous by its absence.

It is quite impossible to form any idea of art and education in their subjective sense, that is as they abide in us, unless there exists something to be educated, something to have developed in it the art of literary expression, of which this book largely treats. That something within us, the carrier of art and education, receives in contemporary tests and books on education every name furnished by the dictionary with one notable exception. We are permitted to have powers, capacities, aptitudes, activities, abilities and what not, but we are positively forbidden to have faculties. Herbart has ostracized the word,

faculty, from all refined educational circles. His followers do not seem to have followed Herbart's philosophy, but they do adopt his conclusions, not valid except on his philosophy, that there are no faculties. Yet an educationalist or a tester cannot possibly carry on without faculties, whatever he may call them, any more than a biologist can do without cells or a physicist without molecules or a chemist without the ultimate elements of his science, though at the present writing it may not be certain just what we shall take to be the carriers of chemical phenomena. No one can possess an education or an art or conceive of a science treating of them unless there is a carrier to sustain the habits which education engenders.

Take a recent pronouncement, purporting to give the teaching of traditional philosophy concerning faculties. "The soul was fitted out with a number of ready-made faculties; thus a recollection was accounted for by referring it to the faculty of memory which produced it, and so on" (*Encyclopedia of Education:* Monroe, Faculty). Such a statement travesties at least the scholastic teaching on faculties. The article goes on to quote St. Thomas without references and hopelessly confounds "distinction" with "separation" and spiritual with material. There was, it is true, a difference of opinion among the scholastics on the nature and distinction of faculties, but no one ever held they were separated entities. The act and the power which carried the act were in the same class, and an act was not a substance but an accident in the philosophical sense. Neither there-

fore could be a separate agent but both were rooted in the substance of the soul. Memory did not produce recollection, but the soul by the act of a power recalled the past, as man by his eye sees a scene. (Sortais: *Traite de Philosophie,* I. 9, p. 38.)

Neither did the scholastic philosophers go to the extremes of those whom Molière ridicules, making of every act an abstraction which was styled a faculty. Monroe (L. c.) cites some modern extremists who hold that there is no general faculty of perception but "faculties for perception of squares, circles, triangles, etc." Similar opinions are often put forth today to justify the multiple and heterogeneous program of vocationalism. All powers are specific in such a philosophy, and perhaps for Montessorians all powers are individual. "A tutor for every child and a specialist for every power," may be the slogan of to-morrow's schools.

The true teaching of faculties is based on the solid principle of causality, a principle without which there can be no science at all. Take a mass of wreckage, which was once an automobile. There lies before you a multiplicity of diverse effects, scratches, bends, breaks, charrings, dust, reeking odors—a scrap-heap. Refer scratches to a scratcher, breaks to a breaker, dust to a triturator and odors to a scent-giver, and you have not gone to causes, you have not philosophized at all. You have invented nouns to fit a number of abstractions, and you deserve the ridicule of Molière's sleep-giver that gives sleep. But if you

are a scientist, you will reduce all common effects to a common cause, and you will finally arrive not at a name but at a reality—at mass and velocity and gasoline and combustion of various substances and at other causes, some actual powers, others the acts of powers, all required for the total effect, each act or power incapable of further reduction, ultimate in its class, and distinct from the other causes. Thus as a physicist you account for the automobile wreck.

Acting in a fashion analogous to that of the physicist, the psychologists attribute specifically different effects to specifically different causes in man. These acts and powers are not separate, but mutually interacting, because man is one being. The powers are not "fictitious units" (Monroe, L. c.). They exist and act as gasoline exists and acts. Nor is gasoline fictitious for the one who does not know its chemical formula. Man acts as differently through his ultimate mental powers as he does through his eye and ear. Monroe's positive teaching that the faculties are "separate (better, 'distinct') modes of activity", or "types of organization" can be accepted as satisfactory to philosophy. In a popular treatment such as is given in this book it is sufficient to assert that there are faculties. It is not reasonable to accept the reality and reject the name. The metaphysics at one end beyond consciousness or the physiology at the other end, the spiritual nature of these powers and how they are rooted in the soul, their bodily instruments and the nature of their bodily functions, are both outside the scope of the pres-

ent work, which is essentially popular in its exposition. A good dancer need not know the anatomy of his feet or be able to name and number bones and muscles and nerves, but he cannot very well do without feet.

This bit of philosophizing is intended only for those who would rule this book out of court because it uses the word, faculties. For ordinary readers it is enough to know that art is one of the "modes of activity", a certain "type of organization" or in the more definite and older fashion of speaking, art is an operative habit developed in a general faculty, and education is the process by which the habit is formed. If the habit becomes automatic, exercising the power to its fullest capacity, the education is finished and remains so as long as nothing interferes with activity or habit or act. That simple and time-honored theory is the unifying bond to the chapters of this book. Humor is a function of the educated faculty of the mind, not of the appetite. Literature is the product too of an intellectual art, and it must have certain principles unless the minds of all men to which it appeals, are fundamentally unlike one another, always and in every respect. Traditional education made literary expression the chief test of secondary education. Tests rightly understood uphold traditional education. Vocationalism is an expensive fad and unworkable in the school. Vocationalism has little educational value, because trade habits quickly become automatic.

The chapters therefore of this book, though first appearing in the form of addresses and discussions and articles in reviews and magazines, have all been controlled by a definite theory of education and directed to a definite goal. This general theory is a further application of thoughts presented in the author's *Art of Interesting* (Kenedy) and *Art Principles in Literature* (Macmillan).

It is too much to expect from any reader complete accord with these principles and their applications, but at least the author may hope that his views will meet with a better fate than the *Art Principles in Literature* met with at the hands of the Editor of the *American Mercury* (June, 1925). "The author of *Art Principles in Literature,*" says the Editor, "is so naïve as to hold that the purpose of art is to make good Catholics." And this despite the explicit statement in *Art Principles in Literature,* p. 42: "To moralize, to dogmatize, to theorize is not the function of art". The Editor proceeded in the course of the same review to disparage the author's enthusiasm for Greek, but how one can be "dithyrambic" over Greek literature and at the same time hold that all literature should be propaganda for Catholicity, only the momentary infallibility of the modern reviewer can satisfactorily establish for the puzzled reader. Clear definitions and a consistent following of them has been aimed at in the following chapters. The writer knows that he himself falls short of his aim and is aware

that readers will meet with some obscurities, but may he not be said to hold opposite to what he asserts, and may he be found not to contradict himself in the same paragraph!

CONTENTS

CHAPTER		PAGE
I.	Modern Views of Humor . . .	3
II.	The Mental Tickle of Humor .	15
III.	A Fundamental Fact of Tragedy and Comedy	21
IV.	Satire and the Modern Novel . .	31
V.	The Permanence of Critical Principles	39
VI.	Literary Renaissances and Nationality	53
VII.	Is There a Distinctive Note in Anglo-Irish Literature? . .	59
VIII.	Celtic Influence in English Literature	65
IX.	The Language of Liturgy . . .	69
X.	The Language of Liturgy . . .	81
XI.	Educational Methods of Science and Art	95
XII.	The Scientific Approach to the Classics	105
XIII.	Unity of Education Through the Art of Expression	111
XIV.	Art and Science in Teaching Greek	121
XV.	Departments and Classical Teaching	129
XVI.	The Ideal System of Moral Training	133

CHAPTER		PAGE
XVII.	Moral Training with Departments	139
XVIII.	The Pedagogical Value of History	147
XIX.	The Pedagogical Value of History	157
XX.	Draper's Prejudiced Historical Essay	165
XXI.	True Democracy in Secondary Education	175
XXII.	Standardizing Education	197
XXIII.	Standardizing Education	207
XXIV.	A Revolution in the High School	219
XXV.	Is the American College Doomed?	231
XXVI.	The Philosophical Basis of Tests	241
XXVII.	The Philosophical Basis of Tests	251
XXVIII.	Is the I. Q. a Constant?	261
XXIX.	False Inferences from Mental Tests	269
XXX.	The Mental Tests of Civilization	277
XXXI.	Mental Tests and a Liberal Education	281
XXXII.	Philosophy of Vocationai Training	289
XXXIII.	Philosophy of Vocational Training	299
XXXIV.	The Fashion and Folly of Vocational Training	307
XXXV.	The Injustice and Futility of Vocational Training	313
XXXVI.	Why I Am Satisfied with My Education	319

SYNOPSIS OF CONTENTS

PART FIRST

HUMOR AND CRITICISM

I. Modern Views of Humor

The Irish and humor. Doctoral dissertations. Tests in humor. Robinson on rationalizing. Skeptic view. Agnostic view. Humor, an instinct. Humor, sex. Greig, the extraordinary. Humor in the baby. Humor in perception, not in desire. Humor, a relief. Humor, a function of the mind.....*Page* 3

II. The Mental Tickle of Humor

The test of civilization. Theorists tracing humor to the laugh. Plato and Aristotle on humor. Humor, mental pleasure. Humor, not the pleasure of appetite. Qualities of humor mental. Harmless incongruity and deception.....*Page* 15

III. A Fundamental Fact of Tragedy and Comedy

Contrast at the birth of tragedy and comedy. Thrill of beauty in contrast. Aristotle's highest pleasure and contrast. Pathos and tragedy. Homeric tragedy from contrast. Sophoclean tragedy from the same. Catalytic power of contrast. Species of humor found in contrast. Homeric humor. Plato's view that tragedy and comedy belong to the same man.....*Page* 21

IV. Satire and the Modern Novel

The didactic grindstone. Literary form of satire. Apuleius, Cervantes, Defoe and other novelists. Preaching allures Dickens and Eliot. Satire an instrument of revolt. Novelist careful of all else except ethics. Satire destroys form too. Criticism perverted by the satirization of the novel. Purpose of novel is not satirizing but idealizing. .....*Page* 31

V. The Permanence of Critical Principles

Outcry against principles. But even jazz and fashion have them. Personality and originality. Contrast of art and science. History witnesses permanent principles. Homer, a proof of the same. Unity, a permanent principle. Limitations of principles. Homeric Question illustrates the extent of unity. Plea for traditional principles and terminology. Principle of distinction between esthetic and appetitive emotion. .....*Page* 39

VI. Literary Renaissances and Nationality

Origin of a renaissance in national movements. Movement and renaissance in Ireland. Debt of Ireland to Moore. Irish caricatures. National subjects a second source of renaissance. Back to the people, a third source.....*Page* 53

VII. Is There a Distinctive Note in Anglo-Irish Literature?

No spontaneous generation in literature. No purely Celtic form. Joyce "jazzed" the novel. Greek and Latin parallels. Celtic subjects distinctive,

not Celtic melancholy. Nor Celtic mysticism. The vague and vast resemblances in other literatures. The suggestive detail not distinctive. *Page* 59

VIII. Celtic Influence in English Literature

Dr. Snyder's test of Celticism, Druids. Limitations of the test. Omission of great Anglo-Irish writers. Shakespeare and Spenser. Cosmopolitan influences upon English.....*Page* 65

IX. The Language of Liturgy

1. Historic form of Prayer: Justification of a literary treatment of prayer. Private and public. Wiseman on the language and form of prayer. The prayer after Communion. Its history. Old Testament prayers. Eastern liturgies. Western liturgies. .....*Page* 69

X. The Language of Liturgy

2. The Literary Form of Prayer: Scriptural citations. East and West differ in variety and structure. Western prayer a period. Making prayers brief and suggestive. Balance and melody. Felicitous phrasing. Not artificial. Intrinsic merit. Modern exemplifications of the same excellence.....*Page* 81

PART SECOND

TRADITIONAL EDUCATION

XI. Educational Methods of Science and Art

Definitions essential to science. Not to virtue. Not to art. Traditional education in art first.

Moderns put sciences very early. Science methods in lower schools. Failure of methods. Return to art methods. Pedagogy of science and art differ. Impersonal *versus* personal. Restore art methods. Creation of art in lower schools and discovery of science later..... *Page* 95

XII. The Scientific Approach to the Classics

Thirlwall's lament. Sciences aid the classics. Especially in archaeology. Homer the first subject. Stawell and Lang. Less pottery and more poetry. .....*Page* 105

XIII. Unity of Education Through the Art of Expression

Lack of correlation felt today. Former unity through self-expression. Sciences and trades bring confusion. Information and distraction. Unity in the Jesuit system. Single purpose. Graded means. Precepts of expression taught by one teacher through three masterpieces. *Page* 111

XIV. Art and Science in Teaching Greek

Teacher and tutor. Immediate contact with Homer. Professor Mackail and Greek. Professor Roberts' editions of Greek rhetorics. Professor Stevenson's attack. The classics impart useful arts to man's capacities. Advantages of literary excellence in a foreign tongue.....*Page* 121

XV. Departments and Classical Teaching

The chorus against electivism. Sir Oliver Lodge advocates Greek. Shortcomings of the depart-

mental system. German method of one teacher for the classics approved.....*Page* 129

XVI. The Ideal System of Moral Training

Morality in every human act. Religion, the best motive power. The ideal, not the average, should be the standard. Averaging mankind. Religious founders furnish ideals. Average and ideals at the time of Christ.....*Page* 133

XVII. Moral Training with Departments

The Platoon System. Quantity production in education. Information of science divisible. Formation of art and virtue indivisible. One agent for moral training. Motive of personality. Locating of responsibility. Reform movements from individuals. Character a by-product of the home. Class under one personality....*Page* 139

XVIII. The Pedagogical Value of History

1. Value in the Lower Schools: Variety of views. Does history function? Tests and the average of centuries. Possibility of function and actual functioning. Division of education on traditional lines. Selection of facts for lower schools. Teaching historical narration. Vitalizing facts and not vocationalizing history.....*Page* 147

XIX. The Pedagogical Value of History

2. Value in the College: Philosophy of history. Passive listeners to lectures. Imagination not philosophy. Preconceived opinions and the Middle Ages. Other injurious prepossessions. Facts the adequate answer to all theories.....*Page* 157

XX. Draper's Prejudiced Historical Essay

Professions of impartiality. Draper's *Intellectual Development of Europe,* propaganda, not history. No references and only secondary sources. Treatment of Pope Gregory I. A series of charges and the facts. Oudin, the source of Draper. .....*Page* 165

XXI. True Democracy in Secondary Education

Prefatory poem: *The School of Wisdom.* Nature of the poem. Liberal education. Freedom in the secondary stage. People demand liberal education. Democracy of education in the Church and America. All men created equal. Democracy not uniformity. Democracy of education imperiled by trade schools. Better primary education. True wisdom, goal of a liberal education. True wisdom not in changing experimental sciences. In literature and pure sciences...*Page* 175

PART THIRD

STANDARDIZING, TESTING AND TRADE SCHOOLS

XXII. Standardizing Education

1. Recent Standards: Quantity production from standardized parts. False analogy and ambiguous terms. No perpetual motion from standards. Advantages. A definition from contemporary averages. *Bureau of Education, Bulletin 30, 1918.* Limitations of this definition. Bushnell and Place of Syracuse University. Swamping of

small colleges by universities. Narrow standards. Standards in ancient Greece.....*Page* 197

XXIII. Standardizing Education

2. Right Standards: Renaissance standardizing. Jesuit *Ratio.* Modernism and evolution. Standardizing the high-school. Newman's *Idea of a University. Cardinal Principles of Secondary Education* and its defects. Educational survey of Gary schools. True principles of standardizing. General training. Differentiation postponed. External adjustment impossible, except for common elements. Choice of these elements. .....*Page* 207

XXIV. A Revolution in the High School

Bulletin of the National Educational Association. Vagueness and lack of distinct order. Radical change proposed. Variety of subjects and free election. Attempted unification. Based on false philosophy. Theory of general discipline. Extreme costliness of the proposed plan....*Page* 219

XXV. Is the American College Doomed?

Origin of American College. University tendency. Pre-professional courses. Equivalence of studies. General training. Colleges becoming universities. Formal discipline. Electivism in the grades. Catholic colleges conservative, but now following fashions.....*Page* 231

XXVI. The Philosophical Basis of Tests

1. Averaged Operations: The infant's *tabula rasa.* Philosophy using tests. Validity of tests rests on

principle of causation. Impression precedes expression. Tests are examinations in the schooling of environment. Binet's operations four. Involving seventeen to twenty operations. Moderns and faculty psychology. Accurate definitions needed. What is a mental test. Tests differ with environment. Tests vary with habits. .....*Page* 241

XXVII. The Philosophical Basis of Tests

2. Interpreting Statistics: Tests based on statistics of averages. False interpretations. History of civilization. Kohs on the Army Tests. Applying averages falsely. Irish, English and Scotch in the tests. Normal curve of distribution. Six advantages of tests.....*Page* 251

XXVIII. Is the I. Q. a Constant?

Dr. Bagley on *Determinism in Education*. Testers claim that initial capacity is a constant. Bagley denies. What is general intelligence. Rating, not measuring, minds. Multiplicity of elements. Same environment and conditions. Intellectual vertical. Several investigations in favor of Bagley. Plasticity of living and mental substances. .....*Page* 261

XXIX. False Inferences from Mental Tests

Testing of millions. Fact and inference. Synonym test. Operations involved. Standardizing. Normal operation rated by an average. Rating relative. Inference of constancy omits will. Mental Damnation Theory. Group inferiority.

Tests based on information. Information from environment. Tests demand language. American elevates the intellect. Ratio and deductions. .....*Page* 269

XXX. The Mental Tests of Civilization

Classics, the world's mental level. Do colleges educate? You train what you train. Newman on mental training. Occupation ratings in the Army Tests. Trades do not educate mind.*Page* 277

XXXI. Mental Tests and a Liberal Education

Mind not a Topsy. Examinations in general intelligence. Operations educate. Tests not information simply. Testing one's art. Language tests. Liberal education justified by tests.....*Page* 281

XXXII. Philosophy of Vocational Training

1. The Wrong Solution: Vocations and occupations. The point at issue defined. Teaching of trades in the schools unjust. Financially extravagant. Trade schools unreal. Trades changing. Trade schools take worst students. Do not prepare for best of life. Educational misfits. Basic theory. .....*Page* 289

XXXIII. Philosophy of Vocational Training

2. The Right Solution: Education a habit. For operations not determined by nature. Habits stay where formed. Trades, instruction, not education. Will develops aptitude. Personality in the school. Teach trades in the trades. Various plans. School, the place for ideals.....*Page* 299

XXXIV. The Fashion and Folly of Vocational Training

The Federal stimulus. Effect of war on trade schools. Eliot's materialism. Training of sense, not training of mind. Mental work trains mind. Trade is mechanical.....*Page* 307

XXXV. The Injustice and Futility of Vocational Training

Educational "graft." Expense of trade schools. Teaching a sinecure. Give money to crowded grades. Unfair to trades not taught. Motley course of studies. Futility of such schools. Former theory correct.....*Page* 313

XXXVI. Why I Am Satisfied with My Education

Dissatisfaction usual. System through order and subordination. Imparting power. Language the best medium. Classical languages training through composition. Classics perfected as means. The educational process. The powers exercised. Coordination of three languages. Developed powers applied to sciences. Course crowned by philosophy. Life.....*Page* 319

LITERARY ART
AND
MODERN EDUCATION

LITERARY ART AND MODERN EDUCATION

MODERN VIEWS OF HUMOR

EVIDENCE multiplies on every side that finally the subject of humor is to be treated in a serious fashion, worthy of so important a topic. The humor of various nations and its characteristics have been lectured on, and samples have been gathered into books. Whole nations have been indicted as lacking in humor; some nations have been designated as all jokers; others as all jokes. Which of these designations is the more tragic might be hard to decide if either of them were true. The Irish, for example, were looked upon by their neighbors as jokes and by the rest of the world as jokers. Within the last few years, however, Celtic melancholy has gathered so thickly about the "most distressful country" that, judging from dark novels, and gloomy plays and pessimistic politicians, either humor has ceased to shine in Ireland or its exportation is under a ban.

These lectures on national humor and the anthologies of typical specimens have prepared the way for the philosopher, giving him material to work on. Doctoral dissertations are appearing.

Dr. Mary Grant wins her degree at Wisconsin by the *Ancient Rhetorical Theories of the Laughable*, 1924, and Dr. Jennette Tandy at Columbia by *Crackerbox Philosophers in American Humor*, 1925. Professor Lane Cooper of Cornell has surpassed Agassiz's feat of building up a whole fish from one bone and the more tremendous feat of various museums in equipping galleries with reconstructed missing links on the authority of Haeckel and Wells. Professor Cooper (*The Aristotelian Theory of Comedy*, 1922) has on better authorities and with more reason and less imagination attempted to expand a Byzantine summary of humor into the lost treatise of Aristotle on comedy. Two such Byzantine summaries survive, and both reduce humor in language to seven headings. There is the probable origin of the oft-repeated statement that there are seven original jokes. Professor Cooper gives illustrations of the seven varieties.

When the time comes to draw up a series of standardized tests to measure human risibility, the Byzantine formulas will be helpful to the standardizers. So far some pottering on tests of this kind has been done and that is all. A learned lecturer recently published the results of his researches and drew up a table of various ages at which girls and boys reacted to different tests of humor. These tables should be kept by earnest parents near baby's weighing machine. Professor Thorndike in his standard college entrance examinations has introduced a few absurdities to test whether candidates are alive to lurking fallacies.

It is a serious limitation of such a test that the candidate with a sense of humor may be so amused as to fail to register his intellectual reaction. The immense demand for humor and the concern of thoughtful minds aware of depleting stocks or of deterioration in the product should spur on the educational experimenters to supply a complete set of tests with normal curves, logarithmic tables and computed averages. Science will thus equip social workers for intense propaganda in mirth-control which will eliminate the humorously unfit and prevent them from multiplying inferior brands of jokes or will even segregate completely propagators of hokum, the Jukes of comedy.

Humor then as a large and important element in life has not received enough attention from our sociologists. Philosophers, however, have not been so remiss. Frivolous people wonder why the human mind insists upon rationalizing everything and why it strives to boil down everything to formulas. Skeptics point at such rationalizing with scorn. Professor James Harvey Robinson in his *Mind in the Making* protests against all rationalizing of the past and then proceeds with the help of philosophical evolution and universal skepticism, irrationally united, to furnish his own rationalization of the past. It is the nature of the human mind to pry into the essence of things and then put its searchings into a formula. Every system of philosophy, then, has had to face humor and—tremendous task—is forced to fit humor into its formula.

Scientists have been testing Einsteinism by

photographing stars, measuring ether drift or by locating spectrum lines. Why have they not tried to explain humor by relativity? Perhaps they think it evident that humor is not any more absolute than fashion, and that if Euclid's geometry is all relative, the point of a joke is surely relative. Skeptics, however, who go beyond Einstein and admit nothing absolute, have taken long ago their stand on humor. They hold that humor is entirely subjective. What is one man's pun is another man's punishment. Yet one fatal objection to the skeptic position is the persistence of certain jokes in history. Cicero tells a story of Ennius, who lived a century before his time, and that story is still doing service. Homer has a joke on the bald-headed man and though Homer shows his contempt for that ancient witticism by giving it to the most contemptible villain in his epics, the joke found laughers then, and even now, three to four thousand years after Homer, humorists can still elicit a smile from the thoughtless by reflections on the same head. There must be some objective reason to account for several thousand years of laughing and for millions of laughers.

The agnostics do not attempt to deny the existence of jokes, but they do deny that the humor can be explained. Your finger-prints are facts. They are individual; each one, like the angels in some philosophies, is a species in itself. In the same way the kinks and whorls in human brains are inexplicable facts. Laughter exists and its cause exists, but why, we do not know and cannot

know. Cicero, who was an incorrigible humorist and whose jokes, published after his death, filled three volumes, adopts the agnostic attitude and while furnishing future orators with a classification of jokes and a catalog of forty-nine varieties, ridicules the Grecian philosophers who with more courage and more energy than Cicero faced even the problem of humor.

It is a species of modified agnosticism which hides ignorance under some handy term like vital urge, manifest destiny, kismet, phenomenon of the ether. To this school belongs Max Eastman, *The Sense of Humor,* 1921. Max Eastman has written a very sensible book. He lightens and enlightens the topic of humor. He rejects other explanations and finally falls back on instinct as his formula. Instinct, however, is a vague term and its use is practically an admission of ignorance. That man is a laughing animal is a commonplace in philosophy. Risibility is the stock example of a natural property. Eastman will not localize his instinct; he avoids placing risibility within the compass of knowledge, because he thinks falsely that the mind has no feeling. Did he not experience a mental satisfaction in elaborating his theory? Is not crossword puzzling a mental joy? Is not the satisfaction and thrill of the truth akin to that other mental thrill which may come even from fiction in the beautiful or from the absurd in what is ludicrous? Eastman is heading in the right direction. Dr. Mary Grant corrects Eastman in his statement that the pleasantness of humor is a modern discovery. She points out that

in the Latin rhetoricians not all humor was derision, and she might have shown that Aristotle made humor the subject-matter of the virtue of eutrapelia and could never have agreed with Hobbes that humor is assumed superiority and laughter only the expression of contempt and never the chortle of impersonal delight.

Freudism has its formula for humor. It is simplicity itself. Freudists sum up life, food, art, literature, religion, metaphysics, man from baby to grandfather, in a word of three letters—sex. The crystalized wisdom of many observers has detected in mankind seven natural inclinations, necessary for the existence of the individual or for the race. These inclinations are called the seven capital sins, not because they are sins but because under those seven heads all sin can be catalogued. Freud picked out one formula of the seven. It was so easy. In every human action there is a tendency to good, but, argued Freud, all good is sexual. Therefore sex is the start-all, be-all, and end-all of mankind. Recent Freudists have seen that pride is more conducive to hysteria and phobias than even lust and so the inferiority complex is now the fashionable formula. An older and far more complete formula summed up, if not everything at least the paganized world, in "the concupiscence of the flesh, the concupiscence of the eyes and the pride of life."

Freud has one answer for everything, and he furnished his followers with a means by which they could easily find that answer no matter how stubborn the material. Imagination takes the

place of logic. Generation or excavation could never furnish all the missing links which imagination can draw or a taxidermist can upholster in a trice. Crude symbolism, strained analogies, faint resemblances, these with a lively imagination, misinterpreting likenesses into identities, can see sex in everything. Nowhere could be found a more remarkable instance of all this than in the contribution made to the seriousness, not to say sliminess of humor, by Professor J. Y. T. Greig in *The Psychology of Laughter and Comedy,* 1923. This is an extraordinary book. It contains a bibliography of three hundred and sixty-three items, three hundred and twenty-one of which the author declares he has consulted; it prints citations from one hundred writers of all nations. This book desecrates the loveliest and fairest of childhood pleasantries, such as peek-a-boo and Punch and Judy and clowning and the like, by the foulest of associations. The book is worth reading for everything except what is of the author's own composition, that is, for its biblography and its hundred citations.

It seems to have been James Sully who was the first to study humor in the infant. He belongs apparently to the school of philosophy where the baby becomes the measure of all things, amending the axiom of Protagoras that man was the measure of all things, and leading the way to the behaviorist, who makes the beast the measure of all things. There is some discussion among authorities just when the baby begins to smile. Eastman takes that smile for instinct, whereas it

is probably the poor baby's last reaction to a series of pokings and cajolings and wheedlings. The worried infant tries to turn away and shake off its persecutor; it cries and finally it stumbles upon the sickly semblance of a smile, and as that means the end of its torments, the baby is ready to smile on every occasion. Infant psychology is admittedly difficult for investigators, but we venture to say that the baby's first smile is simply an imitation of what it has seen from the first. Indian babies, I believe, look on life with the stolidity of a Buddha statue or with the seriousness of a philosophical humorist because their parents do not smile.

Sully was the first to assert the doctrine that Greig makes capital of. "The first suckle is the first chuckle," could be called their slogan. It required the Gallic wit of Balthasar (*Le Rire et Les Rieurs,* 1925) properly to hit off the absurdities of this subtle formula. If Greig was logical instead of imaginative, he would have found the one magic word for humor in gluttony rather than in lust. In fact it would require less tortuous twisting of jokes to reduce them to food and drink rather than to sex. Whether a baby learns to smile or is born that way, it is clearly evident that humor is not a question of appetite. Everybody has an appetite and it needs no education. Hunger is found fully developed even in the lowest animals, but, leaving out of the case wit, which manifestly is in the realm of the mind, the sense of humor is not found even in all men. Appetite is ubiquitous and instinctive; humor is

exceptional and subject to development. Wit and even humor come and go like a flash; appetite grows slowly, becomes imperious, is sated and subsides. The world designates one impervious to humor as dumb, not as a sack of sawdust or an iceberg. Because science, art, literature make things of appetite their subject-matter on occasion, is no indication that all these activities of man are sexual. Professor Greig's philosophy has more of sex in it than all the printed jokes perhaps in the world, yet no one would say his philosophy was a perversion or a modification of a natural bodily appetite. His philosophy is bad logic, not disguised libido. Humor is a mental phenomenon, not a bodily appetite.

The last extensive book on humor, or rather on laughter, is J. C. Gregory's *The Nature of Laughter,* 1924. For Professor Gregory there are many species of laughter. "According to Hobbes," says Gregory, "men laugh when they have too little sympathy; according to McDougall they laugh to avoid having too much." Professor Gregory unites both of these theories, and for all kinds of laughter his formula is "relief." As man himself, so man's laughter has evolved from barbarism, but laughter is a late evolution. "Laughter is obviously younger historically than either of those ancient instincts—fear and anger."

Almost all these theorists when discussing early laughter go to Homer and forget that Homer and Aristophanes give fictions, and that we enjoy on the stage or in story what in reality would be painful. The ugly fact may be idealized and

become beautiful in representation. In becoming more ugly an object becomes more beautiful if properly idealized. Professor Gregory does not localize his "relief" any more than Eastman his "instinct," and of course as relief is a very general term, almost like pleasure, the Gregory formula is versatile enough and is as protean as Gregory asserts laughter to be. Gregory explains why profanity is comic: "Relief by mental explosion is the essence of the 'damn.' " This explanation is far better than Greig's disguised libido or than an Œdipus complex in an Aristophanes mask; yet so elastic a formula will scarcely satisfy the serious searcher for finality in humor, and a mental explosion resulting in profanity, however relieving, is not always jocose!

Professor Grandgent, *Getting a Laugh,* 1925, goes back to Aristotle's incongruity. The behaviorists who exclude all experience drawn from consciousness and would explain conduct by objective and external actions, manifested especially by animals, will no doubt soon have their formula for humor. Perhaps the bark with the static tuned out or the mellowed snarl or the lubricated screech will serve as the one magic word for humor. Professor Robinson's *Mind in the Making* has argued for traces of the animal in man's mental status, but a thorough-going evolutionist should not stop there. If the mind is in part an evolved fox or cow, why should it not be a vegetable in part and a gaseous mixture or a nucleus of nothing bombarded by shadowy electrons which ultimately are nothing. Kant put

the essence of humor in the emotion born of sudden reduction to nothing of an intense expectation. Spencer resembles Kant, but what in Kant is a harmless discharge of mental energy, in Spencer is a harmless discharge of nervous energy.

Who knows but the serious philosophers of humor may ultimately see that humor is a function of intelligence; that it accompanies activity of mind; that it is mental pleasure; awakens mental energy and releases it; is an incongruity adequate to make the mind work but not excessive enough to pain the mind. If philosophers of humor reached that point, they would be where Aristotle left the question. Professor Grandgent shows the working of the formula, although he does not analyze or explain it. Who will explain just what that Aristotelian incongruity is?

It is serious, it is even tragic that philosophic systems should depend upon a joke and be destroyed by a laugh.

THE MENTAL TICKLE OF HUMOR

A PHILOSOPHICAL expert has enunciated the maxim: Civilization varies as the amount of soap used—C ∝ S. In these days, however, of standardized production, of patent packages, scientific salesmanship and universal hygiene, soap has lost its diagnostic powers as a test of civilization. Soap is cosmopolitan. The maxim should be amended. After all, soap has no depth; it remains on the surface. A profounder and better measure of civilization is humor—C ∝ H. The wide application and important consequences of this historic generalization may be left to others, especially to those who are exercised over the obscure problem of what constitutes progress, but here and now the pressing question is, What are the reasons for the amendment? [1]

The most obvious thing about humor is the laugh. Thinkers argued, as may be briefly summarized from the preceding chapter, that if they surprised the secret of laughter, they would have tracked humor to its lair. Greek philosophers made man, or rather mankind, the measure of man. Modern behaviorists made first the baby and

[1] Since writing the above I have read Meredith's *Essay on Comedy:* "One excellent test of the civilization of a country I take to be the flourishing of the Comic idea and Comedy."

now the beast the measure of man. Sully pursued laughter down the avenues of years and dated carefully the first, the dawning smile of babyhood. A well-fed baby looks contented and happy; the lips of hunger resemble the lips of laughter; and therefore your first suckle is your first chuckle, although the perfect smile is of later development. Eastman, who thinks that humor is an instinct—blessed word for harassed thinkers—is also interested in baby laughter. Gregory, who would probably accept the proposed amendment, finds laughter a relief. He is behavioristic and makes laughter a snarl sweetened and ironed out by as many million years of evolution as may be necessary. Greig, whose book on humor has a complete bibliography on the subject, the finest anthology of definitions and the most utter fatuity, is a theorist of the age of Freud and by a vigorous but not a most ennobling imagination brings laughter back to tickling and tickling back to the slough of sex. Greig would not support the amendment. He should head the bureau of census and statistics, but should not be allowed to draw inferences. Sex is no sign of civilization. James, the perfect pragmatist, insists so much upon effects that for him the effect becomes the cause. In his view, we do not weep because we are sad, but we are sad because we weep. So, I suppose, we do not laugh because we see a joke, but we see a joke because we laugh. Much may be said for such a theory. Auto-suggestion puts into practice some such principle, and a good working definition of humor is that given by one upon whom a prac-

tical joke was played. No one in the secret was near when the joke was sprung, so the victim protested, "It was no joke; there was nobody there to laugh."

Plato, according to Lafontaine in *Le Plaisir d'apres Platon et Aristote,* was the first Puritan. Art for him was the shadow of a shadow, the copy of nature which was the copy of the Idea. Comedy is foolishness. Besides, comedy on the stage and in life is based on ignorance, says Plato in the *Philebus,* and, worse than that, laughter is the vice of envy, rejoicing in the evil of others. Plato is the originator of the idea that humor is the offspring of superiority and that the first laugh was derision. Aristotle answers that scoffing and buffoonery are the vicious excess of humor. For him, in his Poetics, humor is painless incongruity; and, in the Rhetoric, it is educated superiority or insolence *(hybris).* Mirth is a virtue for Aristotle —*eutrapelia*—the golden mean between clownishness, the excess, and boorishness, the defect. Is Aristotle dealing in paradoxes? He calls the laughable a mistake *(hamartema)* both in the Poetics and in his Rhetoric; he calls it ugliness *(aischos)* the opposite of beauty *(kallos).* He would seem to say to Plato, "Yes, there is deception and error in humor, there is ugliness or incongruity, but it is painless and virtuous." Indeed, all art in Aristotle's teaching is a virtue of the mind, even the art of joking, and it is precisely because of the excellence of humor that superiority uses laughter against its foe. Were insolence strong and uncouth, it would use its staff, but it is

weak, and blood is messy, so it uses a laugh; and thus satire becomes the weapon of the civilized. The rest of us unsatirical do not always laugh at others—we mostly laugh with them.

Laughter is not the right approach to the true nature of humor. Not by measuring the velocity and volume of falling tears, not by distilling their salt, do we reach the nature of sorrow. Laughter is separable from humor, but pleasure is not. What, then, is pleasure? Pleasure is activity; it is a function of cognitive life, it is the conscious realization of the perfection of our being. What bloom is to youth, pleasure is to action—its perfection and its completion. Find out where the pleasure lies in humor, and you are as close to surprising its secret as you are to understanding anything in life. Say, if you will, that laughter goes back to a tickle, but does it go back to a mere bodily tickle? That might give hysteria or idiocy. The tickle of humor is mental.

The mental nature of humor is evidenced widely. We understand the joke; we see the point; we are not dense. These are the phrases applied when we come in contact with humor. Appetite is the object of direction, not of education as is humor. All animals and all men, if normal, have developed appetites; they all do not seem to have a sense of humor. Humor is more akin to beauty and to truth than to good. The appetite begins at zero, increases to maximum, slakes its craving, and goes back to zero. Appetite is a fire; humor is a flash—sudden, thrilling,

complete. The reflection in the mirror is there all at once and full, if the mirror is polished clean. The joy of humor is more like the pleasure of getting an answer to a mathematical problem or of solving a puzzle than of eating a meal or gratifying any appetite.

It is, in fact, in knowledge that Aristotle puts the pleasure of humor as he places there the pleasure of art. Surprise, novelty, instantaneousness, deception, incongruity, they are all attributes of humor; they all point to the mind. Aristotle analyzes the art of apprehending humor and states that most witticisms are from metaphor and from deception, and that the knowledge of the listener is all the clearer because he expected the opposite. The mind seems to say, "Really, so it is. I made a mistake."

If the clown were in reality as foolish as he acts, there would be pain and not pleasure. As art is noble playing of the mind, so too is humor a healthy playing of the mind. Ugliness transferred to art becomes an object of pleasure, by its artistic representation. Humor has the transfiguring power of art. There is deception in humor, but it is deception undeceived. If deception remained, there would be a real mistake, and that would be painful. There is incongruity in humor, but, like the ugly mask of comedy when put on the stage, it amuses and does not disgust, or it is seen to be a mask, not a real face. The mask is Aristotle's example, and it illustrates perfectly the two commonest elements of all humor, deception and incongruity, and their painlessness,

because the mind in reality finds that both deception and ugliness are bogies. With that knowledge, which is truth sharpened on the edge of contrast, "because the mind expected the opposite," comes the pleasure of humor. Now you may laugh.

A FUNDAMENTAL FACT OF TRAGEDY AND COMEDY

CONTRAST is a commonplace term in criticism, and like most obvious things its deep significance escapes cursory, that is, literally running readers. Art knew early the importance of contrast. Homer was conscious of its value and stopped his stories several times to note the contrast. Criticism was not slow to observe the same point, and for Aristotle contrast is almost as essential an element of art as unity and activity. In fact, contrast is at the root of mental activity. "Because the hearer expected the opposite, the new idea impresses him all the more," says Aristotle, probing to the depths of wit. Or the contrast there may be perhaps in the mind, as Victorinus understands it, and the pleasure of wit is all the greater because two subjective states are opposed, as in the former view two objective conditions were contrasted. Just as Aristotle finds contrast presiding over the birth of the comic, so a Byzantine critic finds contrast at the origin of the tragic. When Œdipus says "In befriending Laius, therefore, I befriend myself," (O.T.141), the commentator calls the line a "dramatic thriller, a *kinetikon,*" "because the opposite is to come."

A mental thrill is described in Hobbes' "sudden glory," in Watts-Dunton's "renascence of wonder," in Keats' "silent upon a peak in Darien," in Browning's "first fine careless rapture." Is contrast a prime element in all these cases? The luster and radiance that all note in beauty gives too a mental thrill. James Joyce in his Portrait of the Artist as a Young Man has an excellent description of the objective element of radiance in beauty, mentioned by Aquinas: "The supreme quality is felt by the artist when the esthetic image is first conceived in his imagination. The instant wherein the supreme quality of beauty, the clear radiance of the esthetic image, is apprehended luminously by the mind. The luminous silent stasis of esthetic pleasure, a spiritual state very like to that cardiac condition called . . . enchantment of the heart." Is it not the birth of Spring on the background of Winter that ushers in the open season for poets,—the splendor of life in contrast with the gloom of death?

It is a matter of winder to the schoolboy learning Greek to find that the language has several superlatives to one positive for the words "good" and "bad." The Greek student will speculate too why there are many superlatives, especially when he has the good fortune to come upon three different superlatives of "good" in one short sentence of Aristotle's Nicomachean Ethics. "There," writes Aristotle, "is the best *(beltistos)* activity where a power is best *(aristos)* disposed to its best *(kratistos)* object," and Aristotle concludes, "that such activity would be most perfect

and most pleasurable too." Is it laboring the point too finely to see the three objective elements in the theory of Aquinas, radiance, proportion, unity, suggested by Aristotle's three superlatives? Let your object be burnished to shining luster and it will be most effective *(kratistos)*; let it be properly proportioned and it will be most consonant *(aristos)*; and the activity will be intrinsically most perfect *(beltistos)* if there is the focusing of unity and not the dissipation of energy on many objects. Miss Mary Prim, the short-story writer, once passed judgment on a sentence of Meredith: "It resembled," she said, "an attempt to wrap up a dozen doorknobs in one package." Contrast of course does not include the three elements of Aquinas, that would be more doorknob wrapping to say so, but contrast it is which gives sharpness to one element, radiance. Photographers are in search of absolute black for an ideal background where no intruding rays would dim the radiation of the subject to be photographed. On the background of contrast sorrow receives its crown of sorrow as joy wins its laughing success.

J. A. K. Thompson in *Irony,* which he subtitles, An Historical Introduction, has added another volume to his interpretation of the Greek spirit for the moderns. An inspiring book! Irony, however, assumes a variety of meanings while Æschylus, Sophocles, Euripedes, Homer, Herodotus, Thucydides, Plato, Lucian, and in fact most of the Greek literary writers are passed in review as exponents of that quality. Tragedy,

comedy, divine jealousy, superstition, pathos, ignorance, failure, vanity of human wishes, and what not, are all irony. In fact, the more common meanings of the term are made little of. What matters it when the review of Greek literature is so fine! Yet in all these instances there is contrast, and truly, if you would have the finest tragedy or the finest comedy, you will get it from the juxtaposition of opposites, from contrast. To expect sorrow and receive sorrow is pathetic. Job is a character pathetic to the extreme, but not tragic. The piercing of a pin might be tragic where the loss of limb or even life might be no more than infinitely sad. Awaken expectation of joys, and on the edge of joy sharpen sorrow, and you will have the tragic. It might have been otherwise, and the pity is, 'tis so.

Homer's poems are full of pathos and the tears of Penelope and Andromache and of all of Homer's women are constantly flowing, and his men too are never far from tears, but then only smoldering pathos flames into tragic poignancy, when Homer whets his sorrow on the hard flint of contrast. Smiles meet tears on the face of Andromache; laughter verges into idiocy on the faces of the doomed suitors; Priam's lips kiss the dread, the murderous hands of Achilles which slew his sons. Homer makes us note the fact: "I have braved," cries Priam, "what no other man on earth has ever braved before, to stretch forth my hands toward the face of the slayer of my sons." The same contrast is explicitly noted when Hector is slain, and the poet would have

the horror of the slaying tempered by pity. "Then Andromache called to her fair-tressed maidens through the house to set a great tripod on the fire that Hector might have warm washing when he came out of battle—fond heart, and was unaware how far from all washings, bright-eyed Athene had slain him by the hand of Achilles." Antinous in the Odyssey while the pleasant wine was in his throat was pierced there by the arrow of Odysseus. "Death gave his heart no care. For who would think that in this company of feasters one of the crowd could bring upon him cruel death." When about to land upon his native Ithaca, the ship of Odysseus is swept away, and the tragedy makes him think of self-destruction. The man in the Iliad who lived beside the way and was a friend to men, had no friend near at his death. Andromache decked herself,—of all things!—with her bridal veil to welcome back her husband Hector, and the veil fell from her as she swooned on beholding him dead. What was the tragedy of Achilles? That he himself had caused the death of his friend. "Your prayer was answered," says his mother. "The pity of it," replies the son. "But what delight have I therein since my dear comrade is dead." To suffer sorrow from an enemy is pathetic; to suffer from a friend is tragic; to suffer unwittingly from oneself is the height of tragedy. Such is Aristotle's teaching. The contrast is the sharper, the sensibility is keener, the pain is most intense.

The most complete exemplification of contrast for tragedy to be found in all literature is offered

by Sophocles' Œdipus Tyrannus. The horrible story of a man killing his father and marrying his mother is told us, not by the immediate presentation of murder and incest, but by their effects after the lapse of years. The remoteness of the acts robs them of their grossness and makes them apt for purifying dramatization. First, the contrast in language is manifest everywhere, but especially in passages where by triumphant conclusions the king exults, and his exultation becomes tragic through another meaning of which he is not aware. Where Œdipus triumphs there he is defeated. The contrast, too, in the situation of all the persons, in position; in endowments, in temperaments, is marked. The contrast in successive complications is equally effective. Every agent and every action comes with the smiling promise of good, but succeeds in bringing a darker cloud of sorrow. The characters are contrasted with one another, mentally, morally, even physically, where the blind see and the seeing are blind. The persons are contrasted too, with their actions. It is a loving son who kills a father; it is the purest of men who marries his mother; it is a benefactor to the people who ruins them, a riddler who cannot read the riddle of his own life. The characters are even in contrast with themselves, and contrast can go no farther than that. Œdipus is Hamlet and Hamlet's uncle; he is Brutus conspiring against the Caesar of himself. He searches for himself in searching for another, and his character is a compound of impetuosity and affection, and above all of truth. He is as pro-

found in his humility as he was confident, if not proud, in his utter assurance. A tragic play—a tragic character, and a triumph of contrast has Sophocles left us in his Œdipus Tyrannus. It might indeed have been so different, and it is tragic to see the dread ruin of the house of Œdipus, whose splendor was hollow, whose soundness was an "ulcer" hidden under the ruddiness of health.

There is a mysterious chemical process called catalysis. Certain compounds are produced by the mere presence of a third agent, whose action is not fully understood. Recently it has been suggested that this catalytic agent has formed on its surface free hydrogen atoms, and hydrogen atoms in the heyday of their youth, before they enter molecular matrimony, are known to be potent sources of energy. Novelty is an effective agent in literature and art, and the fact is evident. Now is not contrast an ingredient of novelty? Not only because the new connotes the old by contrast, but contrast freshens with youth both object and agent. Contrast is a catalytic agent with beaded bubbles releasing free atoms of hydrogen. Would you have tragedy affect with youthful freshness your power of feeling and present the object in its newness? Awaken gladness and then the unexpected sorrow will have no callous surface to impinge upon, but one quivering with sensitive life.

That the same sensitizing power goes on in humor is clear from the agreement among all authorities that the unexpected is the most fruit-

ful font of humor. Is not that only another way of saying that contrast is at the heart of the comic? Not only witticism, the paradox, the bull, the pun, the innuendo, the exaggeration, and other varieties of verbal wit are seen to sparkle with contrasts, but also the humor of character, of situation, of action, is rich in the same element. Mimicry, parody, caricature, clowning, have lurking in the background the original travestied and win piquancy from contrast.

Illustrations of humorous contrast can be found in every land and in every literature. Homer is taken as an example to show that from the beginning of literature contrast figures in the comic. Irony in its common acceptation is the taking of words in a sense opposite to their real meaning. Homer has very many instances especially in scornful ridicule. Achilles in the Ninth Iliad jeers ironically at Agamemnon's warfare during the time he himself was off the battlefield. Litotes, which is frequent in Homer, has the combined force of suggestion and contrast, asserting a thing by denying its opposite, asserting in such a way as to imply more than the mere opposite. In ideas like that of intoxication, of death, and other hateful things men describe them indirectly. Death or disaster is often expressed derisively by litotes and indirect suggestion. "Not long-lived is he who fights with immortals." (Il.5-405) "Not on his own feet did he return home to gladden his wife." (Il.17-27) Another type of the humorous often exemplified in Homer is that connected with bodily defects. The lump raised

on the back of Thersites, the fall of the runner in the muck, the fat and trembling Irus, the limping Hephaestus, are objects of laughter to the characters in the Greek Epic. Eurymachus in the Odyssey has the honor of deriding baldness and of cracking the first joke on that head. "Not without the gods' help did this man come to the house of Odysseus. Quite the splendor of a torch seems to be there, even from his head. There are no hairs there, not even a few." (Od.18.354) It may be that Homer, who indulged much in describing the contortions of wounded and dying, was catering to his audience's love of the grotesque. Caricature and exaggerated deformities have always been potent sources of laughter in all literature and all ages, at least for the groundlings.

In Plato's Symposium "Socrates was driving them (Agathon and Aristophanes) to the admission that the same man could have the knowledge required for writing comedy and tragedy—that the fully skilled tragedian could be a comedian as well." Aristodemus unhappily could not recall most of that part of the talk, else we might have the reasons of Socrates for his profound statement. Would at least one reason be that tragedy and comedy are rooted in contrast, which objectively insures clearness of apprehension and subjectively insures freshness of experience. "It might have been," we joyously say, when from the serious we rebound to the comic. "It might have been," we sadly cry, when from joy we rebound to the tragic. Whittier was right then

in saying that "of all sad words of tongue or pen, the saddest are 'It might have been'." Might he not also have said: "Of all glad words of tongue or pen, the gladdest are, 'It might have been'?"

SATIRE AND THE MODERN NOVEL

SATIRE and the satirical spirit is dominant today in the novel and on the stage. You may have a play lit with laughter or dimmed with a mist of tears, a play which is a freshening bath to the spirit; you may be lost in the land of adventure, wandering breathlessly in a world made up of people you know because they have the same nature as yourself; you may escape from the humdrum realities of every-day life into the realm that artists fashion out of their dreams; in a word, you may have the experience of a true novel or a true play, but you dare not say so, else the Intellectuals will point the finger of scorn at you. You have not been satirized. You have not been mocked ironically; your nose has not been ground off on a didactic grindstone. You are not depressed but elated; you are won away from yourself by vicarious tears and laughter, but, alas! you are hopelessly commonplace and wholly unintellectual.

Satire likes to fasten upon the prevailing form of literature. Irony is satire's favorite weapon, and by adopting a popular and serious medium satire gives edge to its mockery, putting a sober mask before its ridicule. The mythical Æsop took up the serious apologue found in early liter-

ature and changed it into the light fable. "Go to the ant, thou sluggard" was dramatized into the mocking scene of the grasshopper and the ant. Homer's epic was burlesqued into the Battle of the Frogs, the Batromachia, the progenitor of Pope's *Dunciad*. Aristophanes followed quickly upon the Greek tragedians, parodying tragedy in his ribald attacks upon men and manners. Tyrtaeus had his Archilochus and afterwards his Horace, making the lyric the vehicle of satire. Lucian made Plato's dialogues, which were often conceived with satirical purpose, pure mockery. It was Lucian, too, antedating Swift and Irving, who clothed satire in history. Theophrastus' characters, following close upon Aristotle's ethical analysis, were didactic in purpose and began a long gallery of character portraits which ridiculed man's failings through many ages from Sir Roger de Coverley to Dooley. Besides lyrics, Horace took several different literary forms for his satires, while Juvenal used the oratorical declamations with which he was familiar. Montaigne's essays and the earlier attempts of Cicero led the way for Steele and Addison and scores of others who have used the informal essay to laugh at or lash at the follies of mankind.

The novel could not escape the fate of other forms of literature. Apuleius and Petronius, Boccaccio and Rabelais, Cervantes and Defoe, and many more before our day, filled tales with irony and cynicism. In fact, because of its affiliations with low comedy the novel may be said to have inherited from comedy the spirit of satire, since

it handed on the unworthy characters and amorous intrigues of the comedians. Struggling against the impulse to teach, the story-teller had a hard time of it. Humor and human nature lifted *Don Quixote* above the satirical spirit in which the story was conceived. The spirit of adventure and the environment kept Defoe in *Robinson Crusoe* far away from the didacticism rampant in him and hampering his gift of pure romance. Scott's training in ballads and poetical tales and perhaps his Celtic traditions made him persevere as a pure story-teller.

The lure of preaching is strong, and most successful novelists succumb to it. Dickens' *Bleak House* and George Eliot's *Daniel Deronda* show great narrators sinking under the heavy burden of satire and propaganda. The "big idea" becomes too big and overmasters the artist when the thought is not subdued and made integral and subordinate to the story. Great gifts of humor, of pathos, of acquaintance with human nature, or, again, the spirit of pure romance may offset the scorn and moralizing of didactic satire, but usually the purpose dominates the means and the artist is lost in the reformer.

Not that the purposes of satire are not laudable and often even to be desired. They are. Satire is the substitute for the club of the savage. Satire is the individual's weapon when he would attack the multitude. The bomb is an instrument of savagery and despair, and the intelligent mind, disdaining blind force, finds prompt relief and a more satisfying method of revolting in the ridicule

or invective of satire rather than in violent explosives. So while the anarchist is compounding his chemicals and timing his fuses, the satirist mixes the ingredients of his novel and flattered with the consciousness of self-given infallibility, he mounts the pulpit of fiction, blows up the home, makes fragments of marriage and morality and lays civilization in smoking ruins.

The successful novelist finds it hard to resist the lure of preaching and the immense satisfaction of posing the flattering photographs of self on the highways of the world's mind. "Everybody else is out of step; follow me; 'step, step.'" It is a delightful moment in life when one can say that. And the facility with which it may be done! A story of Cuba calls for a close study of the geography, the ethnology, the fauna, the flora, the buildings, customs, everything, in the island. The slightest variation in shade or tint of the local color would disgrace the novelist. Shakespeare and Homer and, in general, all artists did not mind anachronisms. They would, however, fail in their art if they did not know and depict human nature. The modern satirical novel is scrupulous for all facts except the supreme and necessary fact in art, human nature. Most religions today permit every man to be the fashioner of his own religion. If one can make or unmake his religion in his own private judgment, why should a satirist worry? Why not spin out of his own imagination ethics, sociology, virtues, vices and philosophy in all its branches? A satirical novel is the easiest of all novels to write. In

every other novel the writer is hampered by facts, historical, local, personal; in didacticism he feels no need of acquainting himself with what man's wisdom has found to be true. Private judgment is the all-sufficient substitute for a course in ethics, philosophy or theology. Hall Caine would blush with shame to misplace a port on the Isle of Man, though Shakespeare would not; but Hall Caine feels no shame in being ignorant of the Catholic teaching on marriage or in travestying it, while satirizing the Church. Shakespeare would likely inquire about the matter, but Shakespeare was not a satirical dramatist. He created a world of art and did not propound self-made and unwholesome morality from a fiction pulpit.

The spirit of satire disintegrates and debases all art. It makes evil a chief object and can never let us forget ourselves, to escape from the world of reality into the world of ideality created by art. Satire is equally destructive to form. Characters, plot, incident, instead of being made subservient to the claims of the ideal world, are chosen and handled in slavish subjection to the didactic purposes of the writer.

Contemporary criticism is full of the cant, of the hypocrisy that pretends to a moral purpose in the portrayal of evil. The cinema has nauseated us with that smiling hypocrisy that takes the lid from a garbage can, ostensibly with a view to improve the sewerage conditions but in reality to pander to an unholy curiosity of prying into what our neighbors feed on. "Passionate hon-

esty," "full sincerity," "frank facing of the facts," "ironic note," this is the language of contemporary criticism, and where the words are not sheer hypocrisy, they represent a perverted and utterly false theory of art. Such expressions belong to science, to history, to reality, but the cardinal sin of art in the mind of its best critic, Aristotle, is its irrationality, its lack of perfect idealization. Honesty, sincerity, frankness and the like have to do with facts, not with fiction. So far has the satirization of the novel gone, that all these terms are felt to be proper to fiction, whereas they are impertinent and perverting.

The true world of the novelists, the world made by art, is not one whose inhabitants are all pointing fingers of scorn at us. Perhaps they will be people whom we should like to resemble, or should hate to resemble, but it is not the novelist's business to make us feel either way about it. He should create a world that we recognize as human, a world that hangs rationally together, that embodies fully what the mind looks for and does not always find in reality, that reflects consistency, interest, beauty, humor, humanity. If we are allowed to disport ourselves in a world like that, we shall not slip out of it liked whipped curs, or like dogs, carrying attached to us the hideous, rattling and unescapable facts of daily life. No, we shall forget reality entirely, forget even the artist and escape into the realms he has projected from his dreams. Entranced there or laughing or crying there, we shall come back to

earth with nose unground, with back unbruised, with no embarrassing appendages, but immensely refreshed by an intellectualism superior to that of the satiric Intellectuals.

THE PERMANENCE OF CRITICAL PRINCIPLES

THIS subject might appear to some to be as fruitful as the proverbial chapter on snakes in Ireland. The only permanent principle, it might be said, is that there is no permanent principle. Are not criticism and literature the products of personality, and do you find two persons alike? Can criticism and literature be reduced to a formula? This is the age of the stencil. Will all art be standardized for quantity production? Stencils are controlling the linoleum under our feet, the paper on the wall, and the silks and satins woven from myriad threads on the loom; voices of singers and sounds of instruments are stenciled on records, and the compositions of the great musicians are cut out of paper and rolled up in a box for piano or organ. Psychologists claim to have devised stencils which will give the pattern of our minds. What are these principles of yours but so many stencils which would standardize and stereotype all art and all literature and reduce criticism to the highly intellectual process of reading a gas-meter or taking a patient's temperature? To talk principles to artists and their critics is nearly as safe an operation as lassoing an express train or establishing a censorship.

Yet objectionable as principles are, and always exposed to abuse in their application, they cannot be removed from existence by closing eyes to their presence. The moon moves serenely on despite sundry and tremendous terrifying canine barks from all parts of the revolving earth. Even the most bizarre jazz that has ever made us wonder why we thought a boiler-factory the ideal of discord, even the twanging of a heap of scrap iron, is governed by some principles. The principle of jazz may be simply to be different, but even jazzed art cannot be simply accidental. It may intend to be haphazard, but it cannot be entirely without intention or principle. In a like way, fashion, even in its extremest vagaries, is following some principle. A lady's hat may at the ultimate points of its circumference illude any possibility of unifying except as a collection of differences, but a hat traced back to its center will be found to be planetary to a central sun and has a solid principle at its heart, which is my lady's head or face.

Literature and, indeed, all art constitute a language, the mediums of which differ, but the purpose is the same, the expression of human personality to human personality. Originality, which is a function of personality, must always be in art and literature. Originality it is which furnishes the freshness of presentation, causing "the renascence of wonder," which was the essence of poetry for Watts-Dunton. Originality must keep a steady course between the extremes of eccentricity and conventionality, between the

standardized and the merely individual. If the individual revolts against all principles in literature, he will reduce the universe to chaos as effectively as if he made his own individuality the ultimate norm for government or morality.

Art is not talking to oneself, and much less is the art of literature talking to oneself. True art is and always has been addressed to the many. The museum is not the normal place for art, nor is the library the objective of the literary artist. Art is of the people and for the people, but as it is always personal, art is by the artist. Architecture, music, oratory, the play, the story, the poem, were addressed to the many. Science specializes and is impersonal. Science discovers, classifies, and gets to the bottom of truth. It is not concerned about its audience, because, if science establishes its truth, the world sooner or later must accept the truth. Art is personal in its production and in its appeal. Art is made by man for man. It concerns itself with more than truth. If it must be stamped with the personality of the artist, it must also be able to pass as common coin for the many. Herbert Spencer laid down one principle in his philosophy of style, the economizing of attention. That was a scientist's narrow concept of art, which thought only of the truth of the idea and forgot the emotions and heart of man and the personality of the artist. Emotions and the personal equation are taboo in science; they are essential in art. The very nature of art, therefore, as a personality expressing itself to a personality, implies many

principles necessitated by both extremes of this relation. The nature of art as distinct from science involves other principles.

Apply now the test of history, and it will be just as evident from the past that there are permanent principles in art. Ultra-modernists, however, reject the past entirely, and if our world were evolving day by day in every way by predetermined laws into something better, we might take the extreme position of Dr. James Harvey Robinson in his book, *The Mind in the Making,* that the radical "works on a right assumption, namely, that the future has so far always proved different from the past and that it will continue to do so." Yet Dr. Robinson himself bears witness in his book that the past is always with us, that we are the heirs of all the ages. He wishes, however, to convert the modern world from the error of its ways, and he appears to me to assert that we are wrong in following the past, because the only thing the past can teach us is to be different from it. If we are like the past, we are wrong; if unlike it, we may be right at least for a few minutes until we join the past, which we are doing very rapidly. By that reasoning even Dr. Robinson's theory is now history and consequently wrong.

America's greatest industrial marvel in quantity production from standardized parts thinks that the past is as useful as a 1903 Ford. Henry Ford rejects history. Well, we must admit that in natural sciences and machinery the past makes a very poor showing. The boundaries of natural

sciences must expand with truth; the application of new truths must always give us improved machinery. Art, however, is different. Art in its nature still remains and must remain essentially the same as in the past because, although there have been changes in his medium, the artist has not changed, and man whom he addresses has not changed. Out of the past have come masterpieces of literature which have been the standards of our civilization. Homer, to be specific, has nursed, if not fathered, the literatures of the Caucasian races. Homer, appealing to every class in every age, is an astounding fact witnessing to the permanence of critical principles through the centuries. There is something in the Homeric poems that gives to them that duration of art, and that justifies the poets in claiming for themselves perpetuity beyond the pyramids, in declaring that "art is long," and "a thing of beauty is a joy forever." The enduring effect of Homer's poems, with their universal appeal, is based upon causes which are equally enduring and equally universal. By all pragmatic tests, verified so splendidly in Homer, the critic is justified in disclaiming agnosticism or skepticism or idealism or any other philosophical system which would deny or impair the objective reality and permanence of critical principles.

As Homer is one specific instance out of many to prove the permanence of critical principles, we may illustrate from Homer the specific principles out of many which the critic uses and must use. Unity is by all odds the preëminent principle of

art. Unity has been set down by many thinkers as one of the constituent elements of beauty, When philosophy was born out of cosmogony in early Greek times, it was aesthetic in its outlook as it was aesthetic in the language of poetry, which was the first philosophic idiom. Unity was the soul of that order in everything, the order which induced the Greeks to ascribe the term *kósmos* to beauty and to the universe. In "cosmetics" and "cosmopolitan" the English language keeps living evidence of the two meanings of the word which the Greeks gave to the world emerging orderly from chaos.

Aristotle who has formulated critical principles that have had the most permanence and influence in criticism applied the finest of minds to the finest of literary masterpieces. His conclusions are therefore still vital. For Aristotle the chief satisfaction of art and literature was intellectual. The ugly was the *álogon* or irrational, and unity was a chief source of aesthetic pleasure. Homer's great poems possessed unity of plot. What Aristotle taught about unity received through the excessive ardor of the humanists too mechanical and too rigid an interpretation. Principles of criticism must ever be applied with a vivid realization of their origin and their causes. Principles have no more value than the objective facts which they strive to embody and explain. Aristotelian unity did not mean for Aristotle any more unity than he found in the masterpieces from which his keenly analytical mind sketched the ideal. Aristotle demanded unity, not for the sake of unity,

but for the sake of the human mind, which cannot experience the pleasure of art unless the creations of art coalesce into one. Therefore it was no dead, no stereotyped, no synthetic *a priori,* no mechanical unity, no standardized stencil, that Aristotle postulated, but a living, pliable, organic, well-motivated unity in harmony with the spirit of mankind and with the higher yearning of human nature.

Homer was for Aristotle a literary whole, a model of literary unity, and so, when the nineteenth century attacked Homer and Homeric unity, philology took a course directly opposite to that taken by humanism, and to the dismay of all poets and literary artists who were aghast at the notion, instead of demanding with the ultra-classicists mechanical unity, the philologists seemed to affirm that unity was not necessary to literary excellence or could come into existence without the intervention of an artist.

About the time of the beginning of the Homeric Question, great interest had been aroused by the republishing of various folk songs and folk legends. The word "folk" meant that no one knew the authors of the literature in question, and unfortunately the term seemed to assume the possibility of a people writing a literature. One of the least creditable chapters in the history of criticism opened with that assumption. Criticism was diverted from its chosen field and went into origins and sources. Most early literatures, in defiance, we may say, of all facts, were ascribed to a multiplicity of writers. Unity and person-

ality, two supreme principles, in art were apparently shown to be unnecessary.

Later on, under the influence of the biological theory of evolution, another explanation was proposed which partly saved these principles, but the explanation was as equally devoid of proofs as the multiplicity of authors. This explanation of Homer and other literatures was called the nucleus theory. With these theoretical assumptions nineteenth-century criticism was largely one of origins, history sources, and evolution (the *quellen, geschichte,* and *entwickelung* of the German school). The principles of art and literature were dominated by scientific prepossessions and methods.

Behind these assumptions was the belief that early man was so uncivilized as to be incapable of a great literature. The theories of Hobbes and Rousseau helped to generate such a conviction. Even August Wolf, the protagonist of Homeric divisionists, was influenced chiefly by this conviction. The unity of Homer was manifest to his critical abilities, and what he calls the *unus color* would have made him uphold that unity, had he not been possessed with the idea that there did not exist an early civilization adequate to the production of great art. The spade of Schliemann, which brought the past out of its graves, put into these graves much of the nineteenth-century criticism with its multiple authorship theory and nucleus theory of development.

The history of Homeric criticism may be adduced as a parable for critics. It might teach

again the lesson of the fallacy in reasoning from silence or the lesson of permitting a preconceived theory to control the facts. It does teach the permanence of great critical principles and their legitimate application. The principle of unity extends no farther than the premises from which it was drawn will justify. That vital contact with reality Aristotle knew and taught; that human objective the humanists, who made unity an *a priori* and stifling formalism, forgot; that unity in keeping with man's nature and essential to art was denied by many critics who were led astray by false analogies drawn from social and natural philosophy.

The history of Homeric criticism in the nineteenth century is also a parable for the validity of traditions. If the first results of the spread of historical study was to generate skepticism of traditions, when a study of original documents showed many recent traditions to be unfounded, the wider and profounder study of the past and the conclusions of archaeology have in these last twenty-five years been largely found to confirm established traditions. The ashes of Priam's city and the ruins of Agamemnon's city and the labyrinth of Crete have been laid bare to gaze. Sisyphus has been plausibly made out to be the first high tariff advocate, who was put into Hades rolling stones uphill because he had rolled them down on early evaders of custom duties at Corinth, receiving from Homer a reverse canonization such as Dante liked to give his foes. If myths can by a shovel be changed into facts, then no tradi-

tion of the past can be disdainfully cast aside, unless modernists would be haunted by the ghost of that tradition issuing from some future grave to plague them.

Critics and criticism have become in our day slightly tarnished terms, because the critics of the nineteenth century discarded traditions, yielded to the spell of scientific theory, were untrue to the principles of art. Revolutions in science are in order. An invention, a discovery, steam, electricity, the internal-combustion engine, an opened grave, these things change science, history, and industry overnight. But in human and personal things, in art and ethics, in government and religion, revolution has a way of throwing the world back into barbarism. Reynolds has said that if painters did not follow the masterpieces of other painters, art would be forever in its infancy. The same is true, in its measure, of criticism. If the principles are rejected outright, they have to be forever discovered over again.

There is even virtue in the permanence of critical terminology. A critic must formulate his principles in language, and there can be no true progress in criticism unless the critics use the same language. If everyone were to invent an entirely new terminology, as Professor Moulton comes close to doing in his Shakespearean criticism, there might result a polyglot edition of the same ideas without any clarifying of principles or their helpful extension. Technical terms may chill and kill if they become fetishes or idle jargon. Technical terms, if substituted for knowl-

edge, are a delusion and a snare, but, if used as an index for knowledge, they may perpetuate truth and embody eternal principles. When the learned world accepted the literatures of Greece and Rome as concrete norms by which to judge other literatures, then right principles in accepted terms were not as necessary as they are to our generation, which is gradually divorcing itself from all standards of the past.

One of the fine tendencies of modern criticism has been the popularizing of Aristotle's *Poetics* by Butcher and Bywater, the awakening of interest in older critics by Saintsbury, and especially the scholarly and informing editions of the Greek critics by Prof. W. Rhys Roberts, of the University of Leeds. His glossaries are a condensed history of criticism and provide us with the traditional and adequate language of criticism. His promised edition of Aristotle's *Rhetoric* is long overdue. May its coming be hastened and may its learned editor see his way to provide the critical world with a lexicon which would necessarily embody the permanent principles of criticism and secure their permanence by giving them a scientific, a fitting, a universal and traditional expression!

The rhetoricians and literary critics from long before Aristotle put down three primary functions of language, to teach, to please, to move (*docere, delectare, movere*). Literature is a link between two minds, between artist and public. Literature must always look before and after. The artist is talking, but not to himself. These three functions

of literary language were like the three functions of light, to illuminate, to color, to heat; they presented the truth in clarity, vested it in beauty, and enkindled it with good. They are adequate functions because they affect man's entire nature, intellectual, aesthetic, and emotional. These functions discriminate what much modern literary criticism confuses. Under cover of the word "emotions," the favorite word of literary criticism, are concealed two kinds of emotions.

Professor Winchester's excellent book, *The Principles of Criticism*,[1] is marred in detail by the failure to distinguish properly these two functions and their effects. In a symposium on Criticism printed some time ago in *The New Republic*, the discussion was befogged by the same lack of distinction between the self-centered emotions arising from good and the disinterested emotions arising from beauty. Mr. Mencken and Mr. Hackett and Professor Phelps have localized aesthetic emotions somewhere in man's physical make-up, in his glands and their hormones, in his viscera, in his spinal column. The emotions of appetite, born of the apprehension of good, are self-centered and do produce reactions in various organs of man, but the emotions which are aesthetic are disinterested, are intellectual, as they were for Aristotle, for whom the irrational was the only ugliness of art. If a painted or sculptured watermelon were so deceptive that the spectator

[1] For the difference between esthetic and appetitive emotions see, *The Art of Interesting*, C C 5, 17; *Art Principles in Literature*, C C 8, 12.

desired to eat it, he would not experience the characteristic effect of art. Art works through illusion, not through deception. No one in his senses desires to eat a painted watermelon, but it is the real watermelon, suggested through the representation, that he may long for. This latter tendency is selfish and inartistic.

Traditional criticism did not wish to exclude from art and literature the self-centering emotions. On the contrary, they gave ample field to love and hate, to sadness and joy, to hope and desire, to horror and despair. Life is saturated to the full with such feelings. When feelings come to consciousness in men, they are emotions. Emotions, then, in general might be styled localized conscious vitality. Those emotions which come from beauty, from novelty, from humor, from sublimity are localized in man's perceptions and give disinterested pleasure. The emotions which arise from good and evil are localized in the appetites of body and spirit and give self-centered emotions. Literary criticism must recognize the distinction between these two classes of emotion, because in that distinction is found one of the enduring principles of criticism, the principle which distinguishes beauty and good, a distinction perhaps obscured by Plato, but recognized by every thinker, with few possible exceptions, since his time. When the thrill of art is confounded with the shock of reality, art and literature are dragged down to the lower plane of selfishness. In such a thrill of the spinal column or of concupiscence, there is

the momentary gratification of passion, which cannot of its very nature endure, whereas the permanent principles of art are ever generating the renascence of wonder. Principles of criticism exist and permanently persist because they are founded on the ever unsatiated perception of beauty.

"A thing of beauty is a joy forever."

LITERARY RENAISSANCES AND NATIONALITY

TO discuss a literary or art movement, you should be an accurate observer and a judicious critic, but to comprehend thoroughly a literary or art renaissance, you must be a historian and a philosopher. Cause and effect, parent and offspring, generation and inheritance and the numerous analogies for birth which the modern biological sciences afford, beckon you alluringly on into attractive but mystifying ways. At the very outset a difficulty occurs: When did the rebirth take place? Even the literary movement which was the first to be called "The Renaissance" has yet received no fixed birthday. And when exactly did the Periclean age begin, or the Augustan or the Silver Age of Latin or the Second Sophistic? Gorgias's arrival from Sicily in Athens is sometimes taken to date the First Sophistic, yet Tisias and Corax preceded Gorgias and it would not be hard to find most of the Gorgian figures in Homer. Taking Ernest Boyd's volume, *Ireland's Literary Renaissance*—(Revised and enlarged edition, 1922)—as one of the latest discussions of renaissances, we find the same uncertainty and arbitrariness.

A renaissance is a wide and continued move-

ment, operating through a people. There must be an adequate cause for the large scale of such an effect, and history teaches that a renaissance is closely associated with national movements. Homer's poems are nationalist, as are Hebrew literature and all the great literature of Greece. Virgil and Horace are the flower of Rome's imperialism as Cicero was of republicanism. The ages of Dante and Cervantes, the age of Elizabeth and of the Grand Monarque, every literary age, is born of throes in the national spirit. So it is with Ireland's literary renaissance.

Its chief and latest chronicler loves nationality but hates nationalism; and yet is not nationalism, nationality in politics or government, just as Celtism is nationality in literature, or is not nationalism the theory; nationality the fact? Standish O'Grady and his work may suffice as an arbitrary point for the Anglo-Irish Renaissance, but even Boyd goes back to Ferguson and Mangan. A progeny of artists supposes a public educated to welcome them. That public had been long in preparation. Father "Matt" Russell, whose *Irish Monthly* has now passed its golden jubilee, by his wonderful personality developed writers and readers. Oscar Wilde and William Yeats and Katherine Tynan and Farrell and Sheehan and Sigerson, father and daughters, and a host of others appeared in the columns of the *Irish Monthly*. Before them were their immediate predecessors, the writers of the *Nation,* the generation of Mitchell and Davis, of the Young Ireland party, educated by O'Connell and, as in every

movement, outdistancing their teacher. It is customary to ignore or belittle Moore with that easy disdain with which Tennyson, Longfellow and other popular poets are treated by the litterateurs, but Moore was the cosmopolitan voice of the exiled Celt in the great exodus of the nineteenth century. Moore has but little Celtic twilight. One of his earliest teachers was Anacreon, who taught him love-lyrics with some of their conventions and conceits, but who also gave him clarity. Celtic nationality, however, Moore did have. It is remarkable, after all, how many of Moore's poems are filled with Ireland's past and Ireland's sorrow. He is far more national than Burns, and even where he is "commonplace," which is not everywhere, his thoughts were linked with ancient melody. When the Irish all over the world were forgetting their language, they did not forget their traditions or their nationality, because Tom Moore took the "harp of his country," "mute on Tara's walls," and hearkening to her Minstrel Boy, Erin did "remember the days of old." Robert Emmet told Moore he would like to lead an army of Irishmen to the air of "The Little Red Fox." Well, Moore put the words, "Let Erin Remember" to that air, and who can number the hosts around the world he has marshaled behind his music and song?

The Celtic melancholy manifest in Moore was everywhere in Gerald Griffin. Lover and Lever, following the lead of Richard Milliken and Maginn, specialized in Celtic humor and invented for the world the "Stage Irishman." Prout gave

him Gallic wit and classic associations. Micky Free and Handy Andy are exaggerated types of Irish humor. They are caricatures, as Synge's Playboy is a caricature in another direction, creations, all of them, whose traits can be found in real life, but in literature they are isolated, exaggerated into personages and presented as incarnate mirth or incarnate recklessness or superstition or what not.

National spirit will bring about a renaissance, especially if wedded to national subjects. Such subjects are necessitated by the artist's public and are inspirations to the artist who is sensitive to nationality. The fact is evident, as a glance at all literatures will show, that though national subjects are not exclusively found in literary revivals, they predominate. Even such cases as Milton's epic are not exceptions, because the Bible had for his contemporaries the familiarity and force of national traditions. "Harking back to the past" is, according to Stevenson, a characteristic of all great literary movements. Percy's *Reliques* and Macpherson's *Ossian* were forerunners of the causes of the Romantic Movement. In Ireland, as in Scotland and in other countries, national subjects called for expression by the national writers.

This going back to the ballads of the people reveals another subject-matter of literary revivals. The Celtic Renaissance was following Greek revivals when it went to the people. Synge and Padraic Colum and Lady Gregory put the peasants into their plays, as Moore put the peasants'

melody into song. Greek epic, drama, lyric and pastoral were originally of the people, and their transformation into poems of literary art marked revivals. The sonnet was once a song of the folk people. Its fourteen lines fitted exactly into some musical setting. Now the sonnet has become a conventionalized art form, enduring for a long time, but soon probably to pass away. The art has become too manifest, and the use of the sonnet for humor will complete the destruction.

National stirring of the soul is the cause of a literary renaissance; national subjects are its material, but its form and mold deserve further treatment. The particular form in which the Celtic character has expressed itself in this later literary renaissance, especially in regard to the original and native formula of "Celtic mysticism" and "Celtic melancholy" is discussed in the next chapter.

IS THERE A DISTINCTIVE NOTE IN ANGLO-IRISH LITERATURE?

THERE is no spontaneous generation in literature. History is our Pasteur for that truth. Reynolds, the painter, declared that to discard all imitation would be to keep art forever in its infancy and it was Reynolds made the profound remark that the artist who does not imitate others, imitates himself and becomes monotonous. He becomes standardized and stereotyped, we should say today. Quintilian, while warning that no art makes progress solely by imitation, asserts however, that imitation is a great part of all art. Great literary movements begin in translation, which is reproduction, not imitation. Omitting primitive literatures which no one can any longer talk confidently about until all the graves of the past have been opened, the birth of other literatures can be traced back to translations. Nationality will inspire and national subjects will furnish the material, but the artistic form must be inherited, or, as Reynolds saw, be infantile. A desire to build and an adjacent quarry will not rear a building unless another building has preceded. From Livius Andronicus, translating the Greek epics for the Latins, down to Standish O'Grady translating Irish epics for the Anglo-

Celts all literary renaissances seem to have begun in translations.

Contact with a foreign literature is novel and stimulating. Inbreeding of ideas, as Reynolds saw, is as deadening in art as inbreeding of blood is in biology. Greek has furnished forms and ideals to modern literatures. Quintilian claimed for Latin originality in satire only, and even that claim is dubious. The latest literary renaissance in Ireland has invented no new art form. It is strongest where its Celtic models were strongest, in poetry; it is weakest in the novel, if you refuse to include as Ernest Boyd does, not only Banim, Griffin, Lover and Lever, but also Somerville and Ross, Sheehan, Birmingham, whose models were the English novelists.

James Joyce, whom Boyd heralds as the inventor of a new art form, does not represent an advance at all. Joyce has undoubtedly great powers, but he has used his tremendous imagination for details in mere accumulation, not in selection or suggestion. Even his panegyrist balks at the catalog of the "Dublin tramways and the precision of a guide-book in explaining how the city obtains its water supply." "The final chapter, for instance, is a reverie of forty-two pages without any kind of punctuation except the break of paragraphs." "Seven hundred and twenty-five quarto pages cover the events of less than twenty-four hours." If these things represent art, then a telephone directory is an epic; the sifting of a city's sewer is a symphony, and the gathering of the metropolitan garbage and its dumping into

the sea instead of its indexing and pigeon-holing, are responsible for the long-delayed appearance of the great American novel. Joyce has "jazzed" the novel.

Literary renaissances begotten by nationality transform national traditions with the help of traditional art-forms. The great writers of the movement rethink, reimagine, reinterpret traditions; they color everything with their personality; they are original. Is there such a thing as national originality and can it be expressed in formulas? Livingstone has tried to do this for the Periclean age in *Greek Genius and Its Meaning to Us,* and Weise attempted something similar for the Latins in *Language and Character of the Roman People.* Matthew Arnold is the leading critical exponent of this method. He has dissected and labeled and pertinently sampled Homeric and Celtic literature. Boyd, discussing the literary renaissance of Ireland, is skeptical of formulas, though he cannot escape a practise so congenial to man's mind. He feels perhaps that the art which can be formulated is already stereotyped and conventionalized.

Beyond the fairies and distinctly Irish topics like Deirdre, which would seem obligatory to all Irish writers, and beyond some Celtic idioms, which Dr. Patrick Joyce has studied and Douglas Hyde exemplified in his translations and which Synge has extended in his plays, there are not many qualities that may be exclusively attributed to Anglo-Irish writers. Celtic melancholy is found in Griffin and Moore and permeates the *Triumph of Failure,* which Canon Sheehan

thought his best story. Irish music has always had the lament song side by side with the dance song and the lullaby. This last is tinged with melancholy. If the generation of Lover conventionalized Irish humor, the moderns have conventionalized Irish melancholy and have put into it Russian and German traits. Real Irish sadness is like Homeric sadness, intense and pervading, but it is not pessimistic, not made depressing with conscious or concealed cynicism, and utterly unlike its most recent literary manifestations. True Irish sadness is relieved by brave humor.

"Celtic mysticism" has shared with "Celtic melancholy" as an original and native formula, but mysticism is derived, not distinctive. Yeats drew from Shelley and Swedenborg and Boehme, and Russell (Æ) with his group went to theosophy, to pantheism and the East. Bearing on mysticism, there are two common functions of the intellectual imagination, one of which is exercised in resemblance, the other in detail. Metaphor, synecdoche and metonymy, found in all languages, are technical terms for the common products of these functions. When resemblance is conventionalized, there is a symbol which might be defined as a conventional allegory. Irish literature of the penal period used many such symbols, Dark Rosaleen for Ireland, the Blackbird for the Pretender. Yeats has tried without much success to extend this symbolism, but from its very nature it cannot be extended far. Such symbols give mysteriousness to literature, and by many mystery and

mysticism are confounded. Symbolism is not exclusively Celtic.

When, again, the imagination suggests a resemblance that is vague and remote, there occurs something which also goes by the name of mysticism. Of this class are George Russell's descriptions: "twilight, a timid fawn"; "twilight, a blossom grey"; "dusk, a pearl-grey river"; "withers once more the old blue flower of day." Homer and the Greeks in general have little of this vagueness, "The rosy-fingered dawn" is already stereotyped and almost a proper name in Homer and has few parallels. Æschylus with his "unnumbered laugh of the sea" and many passages of Sophocles' choruses would pass for Celtic mysticism in this sense. Hebrew and in general Eastern literature are the prototypes of this mysticism. True mysticism is in reality close and intimate contact with God and with the divine. Spiritual experiences must necessarily be clothed in analogies or resemblances, and all natural likenesses are vague and remote when applied to God. The Bible, eastern literature in general and Dante with their symbolism and misty analogies are mystical in this sense. Homer's Inferno and Virgil's and Milton's give but slight sense of the vague vastness found in Dante.

The other common use of the imagination, in giving detail, contributes also to literary mysticism. When details give the idea of vastness or when they suggest the whole remotely, the literary imagination will produce results akin to mysticism. Such suggestive vastness is not confined

to the Celts. Francis Thompson is full of it and even the crystal clearness of Homer approaches it, in his summary descriptions like, "Full many a shadowy mountain and the echoing sea," "Foam and blood and bodies of dead men," "The sound of flutes and pipes and the noise of men." With some bolder personification, passages like these would be truly Ossianic and Celtic. Perhaps Homer was a Celt. His red-haired heroes were certainly not the dark Semitics. The Bible gives the same idea of vastness by touching a few high points in the scene.

Neither do we find anything peculiarly Celtic in the imaginative use of a single detail, which suggests the whole scene experienced in common with the detail. Such is the prayer in Deuteronomy which describes the plague so terribly: "In the morning, thou shalt say, Who will grant me evening? and in the evening, Who will grant me morning?" The use of the imagination, that Ruskin called imagination penetrative, is the very substance of poetry. It is that delight of suggestion and self-discovery which the realists lose by their Tarpeian weight of excessive detail. Walt Whitman with his interminable catalogs led the way and Joyce has now removed all devices of printing by which detail might be felt individually. Joyce is an unpunctuated Whitman. It is often said that we cannot see the woods because of the trees. Whitman, Ibanez, Joyce and their company bury us under a load of sawdust.

CELTIC INFLUENCE IN ENGLISH LITERATURE

ERNEST BOYD began *Ireland's Literary Renascence* with Standish O'Grady's translations from the Irish, late in the nineteenth century; Dr. Edward D. Snyder begins the *Celtic Revival in English Literature* (Harvard University Press, 1923) more than a century earlier, with Gray's Bard. Displaying an industry worthy of Edward O'Brien, Dr. Snyder has read and briefly described hundreds of works published between 1760 and 1800. The diligence and thoroughness are full and final, and one need not go beyond this expanded dissertation for the doctorate to find everything about the particular point under discussion. There's the rub—the "particular point!" In all discussions about Celtic revivals it all depends upon what you mean by Celtic. Dr. Snyder's test is Druidism. His book might have been styled: The Coming of the Druids to English Literature.

Even in this narrow sense, Dr. Snyder's own thorough book shows that in France and England the Druids were by no means neglected before his arbitrary date, and if he worked backward with the same marvellous application he gave to his chosen period. he could probably detect a

great deal of Druidism. Gray's Bard was the match applied to the tinder long preparing. Macpherson's Ossian could never have made the sensation it did, except for the antecedent sympathy in Scotland. Dr. Snyder while giving ample space to the Welsh antecedents of Gray and handling the Ossian episode splendidly, is almost silent on the remoter Scottish antecedents of Macpherson. Had, too, Celtic fairies, instead of Druids, been used as tests, the Irish Celts would be found reviving English Literature early and often.

The truth seems to be that English Literature has ever been under Celtic influence. Whatever be the exact nature of the influence, there it is. The limitations of Dr. Snyder's definition are evident when we see him leaving out of sight Goldsmith and Sheridan and all the Irish orators of the period he covers. The literature of comedy, of journalism, of parliament, of lyric poetry and of balladry is ignored. Druids figure in epics and tragedies, but not often in these other types. Half a century earlier we find Steele putting a Celtic touch into the light essay and creating for Addison the character of Sir Roger de Coverly. Steele had the comic spirit; Addison was more decorous and tragic. About the same period Swift's genius, thoroughly Celtic, even though it be hard to isolate and label all the elements of Celticism, was giving to the world creations that could scarcely have come from other than Celtic fancy. The Celts from Ireland, Scotland and Wales were always learning English and writing

English and teaching English and leavening English. Scotland has furnished the most famous rhetoricians of English, from Campbell and Kames to Jebb and Minto. England girt with these Celts was always under their influences.

Dr. Snyder could go back almost three centuries and find Barbour's Bruce beginning a long line of Anglo-Scottish writers. The Elizabethan lyricist, Thomas Campion, was Irish, and his fellow, William Drummond, was Scotch. Shakespeare's plays mention a dozen Irish songs and Elizabeth herself had an Irish harper. Shakespeare's fairies came from Ireland with Queen Mab, and the very title of Spenser's poem, "Faerie Queen," betrays its Celtic affinities, even if history did not tell us that its first three books were written in Ireland. If Gray's Bard had, as it assuredly did, a wide and potent influence, what is to be said of Spenser's "Faerie Queen"?

Contacts with foreign literatures are forever bringing about revivals. The English language, more than any other, has been subjected to the infiltrations of various languages. Its history is a history of revivals, through Greek and Latin, through Italian and French, through Teutonic and Celtic. When the English language and literature depends entirely upon inbreeding, it will die beyond power of revival. Let Conrad start a Polish revival, and Sabatini an Italian revival. The Americans, Poe and Whitman, have had their revivals. Latin has not spent its force yet, and Greek is forever starting revivals. It is a

way that an old language has, keeping those who come to know it, silent and staring at its vast beauty with the "wild surmise" of first discoverers of planets or seas.

THE LANGUAGE OF LITURGY

1. *Historic Form of Prayer*

THE study of the language of prayer from an historical and literary point of view, as is the purpose of this chapter, calls for justification. The sense is so manifestly the first thing in prayer that to dwell on the sound seems at least a waste of time, if not a piece of folly. "Words without thoughts never to Heaven go," says even the poet, and we should not care to deny the fact. When a man enters his chamber and having shut the door prays to his Father in secret, he will not bring Webster or Goold Brown along to make a choice selection and a correct collocation of words. The language of the heart has ever defied the rules of grammar and the precepts of rhetoric. To weep with Magdalen, to bow the head or beat the breast with the Publican, are sublime prayers whose history cannot be told, whose eloquence cannot be analyzed.

Yet true as all this is, we should like to say that in studying the expression we do not wish to contest at all the supreme importance of the meaning, and that we do not consider it necessary to rob the body of all its beauty because the soul is and must be preëminently beautiful. Probably the criticism here suggested is best answered

by admitting its truth in the case of private prayers, but to deny its bearing on the question in the case of public prayers; and it is of the public prayers only of the Church that I propose to treat. A singer might be allowed in the privacy of his room to sing his hymns to an improvised melody, but he would not be allowed to do so publicly in the church. The liturgical music of the Church has its great beauty, eminently fitting in the divine public service, and one will not sing with less fervor because one has a higher appreciation of that beauty and a keener realization of its fitness. It may be safely assumed, therefore, that no one will pray with less devotion because he knows and appreciates to the full the beautiful language of the Church's public prayers.

The beauty of the prayer of the Church is an old story. "Nothing," says Wiseman, "can be more perfect in structure, more solid in substance, more elegant in conception, or more terse in diction than the collects, especially those of the Sundays and of Lent." [1] "The collects," says Pichenot, "are remarkable for their simplicity, which puts them in touch with every mind and every heart; for their brevity, which forgets not our weakness and wearies not our attention; for their richness and fulness, which is deficient in nothing. They are full to overflowing with dogmatic truth and moral duty. They are redolent with the liveliest faith, the firmest hope, the warmest charity." Such is the panegyric the learned and devoted author gives in the introduction to his work *La*

[1] Essays, vol. i, *Prayers and Prayer Books.*

Prière de l'Église, which consists of a series of beautiful conferences on the collects of all of the Sundays and of most of the principal feasts. "The collect," says Gautier, quoted in the same work, "is the substance in brief of the whole office; it is a marvel of conciseness, propriety, and poetry. We should take note, too, as no one has yet done fully, that these qualities can be found in all of the prayers of the Mass. We cannot read one without being filled with admiration. Assuredly the past has produced nothing more beautiful. The unknown authors of these masterpieces wasted no words, but made every word tell."

The prayers of the Church have their well defined divisions. "The collects," says Wiseman, "are almost invariably composed of two parts, which may be called the recital and the petition. The first contains either a declaration of our wants, general or individual, temporal or spiritual, or a plea for mercy, or for a favorable hearing. In this first portion, nothing strikes one so much as the noble and appropriate terms in which the Deity is addressed, and the sublime greatness with which His attributes are described. What can be more majestic than such expressions as these: *'Protector in te sperantium, Deus sine quo nihil est validum, nihil est sanctum';* or *'Deus virtutum, cujus est totum quod est optimum';* or *'Deus innocentiae restitutor et amator';* or *'Deus a quo cuncta bona procedunt'?* There is, in fact, hardly a collect in which some singular beauty of thought, some happy turn of phrase is not to be

found. The connecting link between this preamble and the petition which follows is often of the most energetic character, being, in fact, the pith and core of the prayer itself—that which makes it a prayer; and though confined to three or four words, it is varied with wonderful richness in almost every collect. The petition itself is ever most solemn, devout, and fervent; often containing a depth of thought which would supply materials for a long meditation. There is no commonplace; but whether the request refers to public or private blessings, it is conceived in terms so distinct and appropriate as to give a character of originality and beauty."

Such is Cardinal Wiseman's division of the collect; but we can readily distinguish, with others, four parts to every collect, by subdividing each of these two main parts. In the recital we have first the address, as *Deus* or *Domine Deus;* then the motive or occasion of the prayer. In the petition we have the request, and lastly the invocation. For example, in the collect for Pentecost we have for an address, *Deus;* for a motive, *qui hodierna die corda fidelium Sancti Spiritus illustratione docuisti;* for a request, *da nobis in eodem Spiritu recta sapere et de ejusdem semper consolatione gaudere;* and for the invocation, *per Dominum nostrum Jesum Christum,* etc. These parts may not always be arranged in this order, and may not always be clearly distinct. Yet that such a division should exist seems to follow from the very nature of prayer, just as the parts of a speech seem to precede all art. Indeed, this division of

prayer corresponds somewhat loosely to the four parts of a speech; with the address for exordium, the motive for confirmation, the request for proposition, and the invocation for peroration. Macaulay has likened the collect of the Anglican Prayer Book to a sonnet, and if it is not too fanciful to urge the comparison, we might assign the four parts of prayer to the four principal parts of the sonnet.

Instead of treating of all the Church prayers, or even of all the collects, I have though it better to confine my remarks principally to the post-communion, because we shall thus be enabled to treat our subject in a more satisfactory because more definite manner. The restriction will, moreover, serve but to emphasize the literary beauty of the Church prayers, suggesting by the richness within such narrow space the wealth that can be gained by faring further afield.

One of the most remarkable features of the prayers of the Church is their variety of expression united with sameness of idea. "Thus," if we may once more quote Cardinal Wiseman, "the collects in Lent repeatedly pray against the same dangers of the season, remissness in its most painful duties, or mere formal observance of them, without the interior spirit of humility and mortification. One of the two collects of each day is almost sure to allude to one or other of these topics; yet the variety which runs through them is most surprising. The petition appears new every time it is repeated, from the happy change in the phraseology. They are like variations in

music upon a simple theme; more striking than such variations usually are, because they never degenerate into long complications of the original strain. The last is as simple as the first." (*L.c.*) Now if the collects are restricted in their scope, at least during certain seasons, the post-communion, which we have taken for our study, is still more restricted in its scope, and that, too, for all the year round. If then such a prayer succeeds in avoiding monotony of form and expression and sameness of idea, we shall surely come away from its study with a keener enjoyment of its beauties and a higher appreciation of the skill of its authors.

In the division and arrangement of its parts the post-communion follows in general the plan of the first collect of the Mass. However, it is to be noted that it is, at least in more recent times, shorter, as a rule, than the collect. This shortening is especially noticeable in the address, which in the post-communion is frequently nothing more than *Domine.* The fact of Communion, as we should expect, becomes more prominent, taking usually the first place and receiving full and varied expression. The petition of the post-communion is expressed in the plural number, as in the collect and the secret. A remarkable exception to this rule is had in the prayer of the priest: *Corpus tuum quod sumpsi,* etc. It seems indeed a slight change from the plural to the singular, but that change of number is the evidence and expression of a greater change in the every-day life of the Church. In earlier days, when to assist at Mass

meant likewise to receive Communion, the congregation was as much at one with the priest in the end of Mass as it was at the beginning, and no priest could have said *sumpsi* without partially suppressing the truth. The change from the daily Communion of all to the daily Communion of one has its history recorded every day in the Mass in the change from *Quod ore sumpsimus* to *Corpus tuum quod sumpsi.* The second of these prayers still survives in the plural number and may be found in the Gothic Missal.[1]

The post-communion has always been part of the Mass. St. Paul in his first Epistle to Timothy (2 : 1) says: "I desire, therefore, first of all that supplications, prayers, intercessions, and thanksgivings be made for all men." St. Augustine (*Ep. ad Paulin.* 59, 5) gives a long explanation of this passage, asserting that these various terms refer to the different parts of the divine service, and most of the early Fathers, both Greek and Latin, explain the verse in the same way. Whether this is the proper explanation of St. Paul's various terms does not concern us here; what interests us most is the evidence that such an explanation affords of the very early existence of the *Gratiarum Actio,* or post-communion. In the Eastern liturgies, indeed, the prayer is always styled the "Prayer of Thanksgiving." According to St. Augustine (*L.c.*) the thanksgiving follows Communion and concludes the services. "Participato tanto sacramento, gratiarum actio cuncta concludit." In the early Roman liturgies

[1] *Liturgia Romana Vetus,* Muratori, 2, 653.

the post-communion is often called *Oratio ad complendum*. In the Gothic liturgy there is both a post-communion and a collect, which is really a post-communion. We shall return later to this fact, as it seems to be a connecting link in the development of the post-communion.

What was the model upon which the post-communion was fashioned? There can be little doubt that in her prayers, as in the rest of her services, the Church took the model of her forms to some extent from the Old Testament. We have many prayers in the Scriptures, beginning with Genesis; and many of them resemble in form the prayers of the Mass, although, as was to be expected, they have not the invocation that marks the close of our prayers. For example, we have the prayers of Jacob (Gen. 32:9-11): "O God of my Father Abraham, and God of my Father Isaac, O Lord, who saidst to me: Return to thy land and to the place of thy birth, and I will do well for thee, I am not worthy of the least of all thy mercies and of thy truth which thou hast fulfilled to thy servant. . . . Deliver me from the hand of my brother Esau, for I am greatly afraid of him: lest perhaps he come, and kill the mother with the children." There is also the prayer of Moses in Deuteronomy (9:26): "O Lord God, destroy not thy people, and thy inheritance, which thou hast redeemed in thy greatness, whom thou hast brought out of Egypt with a strong hand. Remember thy servants, Abraham, Isaac and Jacob: look not on the stubbornness of this people, nor on their wickedness."

In both of these cases, as in many others, we have the same parts as in our own prayers, but they are more loosely put together. We have the address, motive, and petition. That all this is natural enough is evident from various other early prayers of Eastern nations and literature. Every student of the classics is probably familiar with the prayer of the priest of Apollo mentioned in the first Iliad, a prayer which has the same natural division of parts.

When we turn to the earliest prayers after Communion, we are struck by their great length. In the Eastern liturgies this is the case to a very marked degree. However, in the most ancient liturgies the prayers seem to have been shorter, and the lengthening of prayers and redundancy of expression may in truth be considered evidence of a somewhat later date of any given liturgy. In the liturgy of St. James, one of the earliest which we possess, the thanksgiving is short. It runs as follows: "We render thanks to thee Christ, our God, that thou hast made us worthy to partake of thy body and blood, for the remission of sins and for life everlasting. Do thou in thy goodness and love keep us, we pray thee, without condemnation."

Whereas, in the liturgy of St. Dioscurus, Bishop, we read the following prayer: "We give thee thanks, we adore, praise and exalt thee who art eternal and hidden, who hast made us worthy of this wondrous and unfathomable gift by which thou hast anointed and cleansed the souls of thy adorers, and by freeing us and calling us from

the corruption and ruin that follow upon leaving thee, hast joined us to thyself and hast filled our hearts with the light of thy knowledge. Grant us that we may live ever in thee, apart from all danger of fall, and that at any hour we may appear before thee pure and spotless. Grant us also that this receiving of the body and blood of Christ, thy only begotten Son, may serve to cleanse and purify, not to condemn and confound us. Grant too that throughout our lives we may ever offer sacrifices of thanksgiving before thee and that these life-giving mysteries may keep us ever in loving friendship with thee;" etc.[1]

It may be noticed in both of these prayers that the expression of thanks is prominent. So it is in all Eastern liturgies. The *Oratio, gratiarum actio* is true to its name. In our post-communion, on the contrary, the expression of thanks is of comparatively rare occurrence. One early liturgist, Dionysius the Carthusian, has a scholastic explanation of the fact. "Although the one praying does not formally express the praises of God in his prayers, yet the prayer itself is a praising of God." The distinction expresses a truth but does not tell us how it happens that thanksgiving is always clearly stated in the Eastern liturgies, and why it is not so stated in the Western liturgies. We may perhaps hazard a conjecture to account for the fact. In the Gothic Missal already mentioned we find after Communion both a post-communion and a collect, and in the post-communion of the very first Mass the idea of thanksgiving

[1] *Liturgiarum Orientalium Collectio,* Renaudot, 2, 489.

comes out quite prominently. The post-communion reads as follows: "Made strong with heavenly food and drink, let us, dear brethren, give praise and thanks to God Almighty, begging that we who have been held worthy to partake of the body and blood of our Lord Jesus Christ, His only begotten Son, may also be deemed worthy to receive the recompense of heaven through our Lord Jesus Christ, His Son." Such is the post-communion, and the collect after it is the prayer said now by the priest immediately after taking the Precious Blood, *Quod ore sumpsimus,* etc. Our conjecture is, then, that at first after Communion there was a prayer of thanksgiving, followed by a collect, as is the case in most Eastern liturgies, and that in the course of time the former disappeared, leaving only the collect. This conjecture is simply based on the fact that there is no explicit mention of thanks such as we should naturally expect after Communion, and such as the earlier liturgies of the East, more in accordance with the name of this part of the Mass, always have.

THE LANGUAGE OF LITURGY

2. *The Literary Form of Prayer*

THE post-communion of the Eastern churches is frequently a mosaic of Scriptural phrases. It is unnecessary to speak of the devotion and sacredness imparted to these prayers by such a practice. In the liturgy of St. Basil (Renaudot, 1, 24) the thanksgiving after Communion runs as follows: "Our mouths are filled with joy and our tongue with exultation because we have been made sharers of thine immortal sacraments, O Lord: because what the eye hath not seen and the ear hath not heard and the heart of man hath not conceived, that, O God, thou hast prepared for them who love thy holy name, and hast revealed to the little ones of thy holy Church. So, Father, it hath seemed good before thee, because thou art merciful, and we give to thee on high glory, honor, and worship, to the Father, the Son, and the Holy Ghost, now and always and forever."

Whilst this peculiar characteristic of using the Scriptural language is more rare in our post-communions, perhaps because of their brevity, we find nevertheless striking and beautiful examples of it. The following prayer, said on the feast of the Precious Blood, is an instance in point: "Admitted to thy holy table, O Lord, we have drawn

waters with joy from the fountains of the Saviour; may His blood become for us, we beseech, a fountain springing up unto life everlasting." Other examples of the same nature occur in the liturgy of the feast of the Sacred Heart and of St. Paul of the Cross.

As already indicated, there is a marked contrast between the liturgies of the West and those of the East, and that contrast is evident at first glance. We have spoken of the well-known brevity of the Western collects. Their variety is equally evident. In the East one prayer serves for all time; in the West we have different prayers for different times, and a choice of prayers even for one day. A person who has not read the liturgies of the West can form no idea of the abundance and diversity of the collects to be found in them. In the Sacramentary of Leo we have for the feast of St. Laurence no less than fourteen sets of collects and an equal number of Prefaces. There are thirty different Masses for the common of martyrs which may be used during a single month. Everywhere we meet with a wealth of prayer, and however incapable a priest might find himself to be of reading between the lines new meanings whereby to stir his languid devotion, he might quicken the pulses of piety by a fresh prayer every day in the week and have no prayer the same for two years in succession.

There is in all these varying prayers of the Western liturgy one marked characteristic, a characteristic that is the source of nearly all the difference to be noted. That characteristic can-

not be put more briefly than by saying that the Roman prayers are what in rhetorical language is styled periods, the Eastern are not. As the Christian religion made churches of Roman palaces, made holydays of Roman holidays, so taking the Pagan language, it made prayers of the Roman periods. It clothed the spirit of Jewish piety in the melody of the Roman sentence, and fitted an Eastern soul to a Western body.

How early this element entered into the form of our prayers we cannot say. Pope Gregory and Pope Gelasius have told us that the light of prayer handed down by them was kindled from the torches of the catacombs, and St. Irenæus gives us a prayer (*Hæres,* 3, 6, 4) that in its words is not only fragrant with memories of his early home at Antioch, but strongly suggests the effect of Roman environment in his adopted home at Lyons: "Lord God of Abraham, God of Isaac, God of Jacob and Israel, who art the Father of our Lord Jesus Christ; God, who out of the abundance of thy mercy hast been pleased that we should know thee, who didst make heaven and earth, governest all things, art the only true God, above whom there is none other, grant through our Lord Jesus Christ that the Holy Ghost too may govern us: grant to every reader of these writings to know that thou alone art God, to abide firmly in thee, and to hold aloof from all heretical, godless, and blasphemous opinions." Gradually we note a change in the development of our prayers with the adoption of the periodic style, and with that fundamental change others

came in its train, some of which mark the distinguishing beauties of our prayers, and some perhaps their drawbacks. With the periodic structure came brevity and precision and harmony and suggestiveness, but with it came also some loss of feeling and spontaneity. Art brought its excellences, and nature withdrew some of its charms.

What would be the effect of the Latin period on the warmth of feeling but exuberance of expression in the following post-communion of the liturgy of St. Cyril (Renaudot, 2, 288): "Now that we have been made glad from the blessed fountain of thy grace, O Lord, what shall we give in return to thy bounty great and generous; but though we are bound down to an earthly mind, yet considering thy majesty, we cry with words of praise, O the depth of the riches of thy wisdom, O the breadth of thy goodness, O the unfathomable abyss of thy mercy, that when we were holden of the malice of sin, thou hast led us to such joy and gladness;" and so the prayer goes on for as long again.

This prayer indeed is not believed to be of very early origin, but such a prayer could never at any time serve as a collect in our liturgy. The form of Latin period adopted would prune such exuberance and condense such redundancy; but in the pruning and condensing, it is to be feared, much of the feeling would likewise vanish. Perhaps it is better so in our colder and more practical Western life. The exotics of Asia Minor will not stand the climate of Europe, and the

cedars of Lebanon will not flourish on the coast of Massachusetts.

If we would get to a fuller idea of the mold into which our prayers are cast, we should note that it was not the periodic structure simply which has been adopted, but a certain peculiar form of the periodic structure. Our prayers approximate very closely to the so-called perfect period (*periodus quadrata, rotunda*) with its balance and antithesis.

The first effect of choosing such a form for our public prayers was to make them brief. In the Eastern liturgies there was no intrinsic reason why the prayers should ever stop. As the number of petitions to be made is practically unlimited, these prayers could go on as long as the priest's voice and lungs held out, or until the impatience of the congregation brought him to an enforced end.

But Western activity compelled us to make our prayers brief; and if withal they were to be efficacious they must be suggestive. The Eastern practice of heaping up synonyms and multiplying adjectives found no favor in the West. The aptest synonym and the most significant adjective, and they only, could now find a place in the periodic prayer. But what the post-communion lost in length, it made up in depth.

How would that beautiful post-communion said on the feast of the Annunciation, the prayer that has been chosen for the Angelus, how would it have fared in Eastern hands? Should we have had the marvel of brevity and completeness that

we now have? Here is a prayer of which the expression, "multum in parvo," is, if ever, most fully verified, a prayer in which the life of Christ and our salvation are the themes, and are interwoven and blended in a sweet melody, leading us in a climax from the angel of the Annunciation to the angel of the Resurrection, from grace to glory, with the revelation of the Incarnation for its bright foreground, and for a dark but divine setting the Passion and Cross of Christ. No translation can preserve its charm, which depends essentially on the order and harmonious dignity of its Latin: "Gratiam tuam, quaesumus Domine, mentibus nostris infunde, ut qui, angelo nuntiante, Christi Filii tui incarnationem cognovimus, per passionem ejus et crucem ad resurrectionis gloriam perducamur."

Besides giving suggestive brevity to our prayers, the laws of the Latin period gave also balance and antithesis. In this balance and antithesis much of the pleasing melody of our prayers consists. We have already noticed that the choice and order of our words contribute to that effect, but the balanced and pointed contrast of the clauses is the main cause of the harmony that the most casual reader cannot fail to observe and enjoy. It is very difficult, because of the very abundance of the matter even in the case of the post-communion, to restrict oneself in the choice of examples. Translation is here inexpressibly helpless. We quote some of the shorter post-communions from the old sacramentaries.

"Libantes, Domine, dona celestia, praesidium

nobis inesse gaudemus et inter ista quae transeunt, eorum quae sunt mansura confidimus." [1]

"Sanctorum precibus, Domine, quaesumus, salus et mentium praestetur et corporum, ut doni tui fiat nobis et benedictio copiosa et larga protectio." [2]

"Majestatem tuam suppliciter deprecamur, ut sicut nos corporis et sanguinis sacrosancti pacis alimento, ita divinae naturae facias esse consortes." [3]

"Repleamur, Domine, gratia muneris sacri, et quae gustu corporeo dulci veneratione contingimus, dulciora mentibus sentiamus." [4]

Examples can give no idea of the variety displayed even in this very matter of antithesis. Anyone who would like to come to an appreciation of the melody that sounds along the well-balanced Latin sentence, could do no better than read the collects of the old Roman liturgies. It is really remarkable how not merely sameness of phrasing but even monotony of sound is avoided within the narrow compass of the brief Western prayers.

Whether the successive authors of these pray-

[1] "Having made offering, O Lord, of the gifts of heaven, we rejoice to possess a safeguard within us, and while living among the things that pass away, we put our trust in those that abide forever."

[2] "Through the prayers of the saints vouchsafe, O Lord, to give us safety of soul and of body too, so that thy gift may bring to us both abundant blessing and manifold protection."

[3] "Humbly do we implore thy Majesty that as thou dost feed us with the nourishment of thy most holy body and blood, so thou wouldst make us sharers of thy divine nature."

[4] "May we be filled, O Lord, with the grace of thy hallowed gifts, and may that which the taste of our body has enjoyed in sweet worship, prove sweeter still in savor to our souls."

ers went back to attune their ears to the rhythmic cadences of Cicero, or whether the first Leo with the overshadowing mastery of a great genius fixed once for all the melody of Roman prayers, certain it is we have the same grand theme with innumerable variations. To realize how sensitive to harmony these musicians of language were, a simple experiment may be performed. The phrases, *quaesumus Domine* and the like, were consecrated and, admitting of no internal modification of melody, had to seek it in some external change. The expressions were fixed; their places were not. Now one can feel how these phrases, though restricted to the beginning of the prayer, yet are shifted forward or backward, either transposed or separated, but ever musically adjusted to their setting by a delicately trained instinct of harmony. Another easily verified evidence of this melody is offered in the variant readings of many prayers. Often when an intruding word or wrong collocation may not disturb the sense of the passage in a prayer at all, yet will the musical ear detect the disturbed harmony of the period, and suddenly discover at the bottom of the page the corrected text.

He who studies the melody of these prayers will find his pleasure all the greater that the melody is accompanied by a felicity of phrasing and a rich suggestiveness of vocabulary, reminding him of the "curiosa felicitas" of Horace, even though it will at times arouse the despair of the translator. We have restricted ourselves to the post-communion, and for examples of such happy

and significant turns of expression we would refer to the beautiful paraphrases used to describe the Blessed Sacrament and Communion. A few pages of the Sacramentary of Leo give us the following expressions, which might easily be multiplied: "pignus coelestis arcani," "repleti substantiâ reparationis et vitae," "redemptionis nostrae munere vegetati," "aeternae pignus vitae capientes." These expressions are not only beautiful in themselves but are appropriate in their contexts. In a Mass of the Sacramentary of Leo (*Mur.* i; 352) where the collects and the Preface refer to the evils that surround us in this world, the post-communion prays that *per hoc tuae sapientiae sacramentum circumspecta moderatione vivamus.* What more fitting fruit to ask from the Sacrament of Christ's wisdom amid the evils of the time than to live with wide-awake temperance?

But have not such prayers too much art and too little feeling? The objection deserves consideration. The art complained of is most apparent, we suppose, in the carefully worked-out balance. Yet certainly in the case of these prayers the balanced structure is free from its most common defect of exaggeration and effort. Indeed, the antithetical form is a fitting picture of the supernatural life and a fitting expression of prayer. The supernatural life has for its final antithesis the tremendous contrast of heaven and hell, and for its daily antithesis the essential contrast of sin and sanctification. The nature of prayer too demands such an expression. When we are in

misery, we cry for mercy; when we are in sickness, we ask for health; when the body is facing death, the soul is clamorous for life eternal. In the prayers on Good Friday, which are looked upon as the oldest prayers in our liturgy, the antithesis is very marked.

As for the objection that the post-communions have too little feeling, we think it need cause no difficulty. The man who has the feeling will find no resistance to its expression in the melodious prayers of the Church. He will rather find there everything to sustain the feeling if it is in his soul, or to elicit it if it is not there. He will find there the great act of Communion described for him in language whose variety will never pall, whose suggestiveness can never be fully fathomed. He will find there the fruit of that Communion ever apt in its petition, ever new in its expression.

Much might be said in addition, developing the contents of our post-communions, to bring out their bearing on the doctrine of the Real Presence, to study what virtues should grow out of Communion. The dogmatic significance of the post-communion has been well treated in the introduction to the great work of Renaudot and Muratori on the liturgies, and we cannot hope to add anything to their labors. As for the devotional teaching contained in the post-communion, that will be a life study at the altar, and to that life study must be left the full appreciation of these beautiful prayers.

Yet it is impossible to conclude without saying a word of the intrinsic worth and style of the

liturgical prayers. It would be easy enough to compile here words of praise and commendation that every liturgist from the beginning has uttered upon the beauty of these prayers; but the examples already quoted are perhaps sufficient of themselves to give some indication of that beauty.

These prayers, we have seen, have in their expression all the majesty and melody of the Latin sentence; they have in their thoughts, even to a greater degree, the purest poetry and the choicest eloquence with which religion has ever inspired the soul of man. We know this to be fully true in the case of the prayers on the great feasts of the Church, but it is true in its measure of every line of the liturgy. We have found it to be true in the older prayers of the Church, but it is equally true of the more recent prayers. "Nor hath the Church at any time lost her power of prayer, her mastery over the harp of David; but silent and almost unstrung as it may for a long space appear, she hath only to attune it when she lists, and strike it, and it brings forth the same sweet soothing notes as at the beginning. Every new service or prayer which she has added to the Pontifical or Ritual, dissolves into the mass of more ancient compositions, so as to be undistinguishable, and blends with them as a new ingredient 'in the sweet confections of the apothecary,' equal to the rest in savor as in virtue." [1]

In confirmation of this statement, let me cite some modern prayers. All have admired the variety and graceful aptness of the Scriptural al-

[1] Wiseman, *l. c.*

lusions in the blessing of the candles on Candlemas Day, or of the ashes on Ash Wednesday, or of the palms on Palm Sunday; but we shall certainly accord no less admiration to the more recent prayers of the Roman Ritual, adapted to the daily necessities of our modern life. To show how the Church is still in living contact with the age even in its more material aspects, to show how the civilization of our day can be clothed in the language of revelation, let us read the prayer used in the blessing of a railroad:

"Almighty, eternal God, who hast created all the elements for thy glory and for man's use, deign, we beseech thee, to bless this railroad and its equipments, and deign to watch over it in thy ever kindly providence; and the while thy servants are swiftly borne along this way, may they, walking in thy law and running the way of thy commandments, happily arrive at their heavenly home." (One is almost tempted to translate the last word "terminal.")

A similar beautiful prayer, in which allusion is made to Philip in the chariot of the Ethiopian, is used to bless the railway coach. We quote also from the Ritual the prayer for blessing a telegraph station, and we must again protest that here, if possible more than elsewhere, the translation does no justice to the original.

"O God, who dost walk on the wings of the wind, and who alone dost work wonders, as it is thou that by the native power of this metal dost bring the distant hither, and speed the present

hence away, more swiftly than the lightning flash, grant that we likewise, learning a lesson from this new invention, may with the help of thy grace come to thee with greater speed and greater readiness."

We feel that we have not done justice to our subject. Those who will read with attention the modern and ancient prayers of the Church, will recognize the great variety and charm of the Church's liturgy, which can only be suggested by the writer. It will be more easy to realize the charm of these prayers when we remember that they were on the lips of the saints who have gone before us, on the lips of St. Bernard, St. Gregory, St. Leo, St. Augustine; that our cathedrals, the world over, still echo with the accents first uttered in the catacombs. They will find that the Church which blessed the Roman chariot, now blesses the modern railroad car, and the blessing is as fragrant as it ever was with the piety of Palestine, and as harmonious as ever with the majestic melody of imperial Rome.

It is indeed our great good fortune that we are able to voice our petitions in language that falls little short of perfection. We might have had devotion alone, but it is our special privilege to have in the glorious immortal tongue of Rome the added graces of human expression. In a word, we have the soul of prayer informing a body in some degree worthy of its dignity and excellence, and we have this incomparable boon too where we can most fully appreciate it, in the solemn and precious moments after Communion, an apt

schooling indeed for the great post-communion of eternity, the eucharistic song of a ransomed world, the chant that broke on the ears of the Apostle at Patmos.

EDUCATIONAL METHODS OF SCIENCE AND OF ART

HERE is an appropriate motto to carve over the door of the new High School: "I had rather feel compunction than know its definition." The *Imitation* (I. 1) in these significant words voices a profound principle of education and suggests a program. In science definitions are of essential importance. They are the maps of knowledge, the sure guides of the scientist, the necessary foundation of all classification and of all conclusions. Definition is the mother and father of science. When Socrates began to formulate ethics, definitions isolated the specific instances from which he built up his inductions, definition was the last stage in his inductive questioning, and definitions became the principles from which he deduced his conclusions. Science is impossible without definition, but virtue and art can be practised and reach perfection without definition.

The whole human race can feel compunction, but only the theologians and moralists are worried about its definition. You may have every virtue in the calendar without being able to define one, but you cannot take one step in science without definition. Virtue is a habit of the will and

has its habitat in men. Science is classified information and is stored in books.

Exactly the same antithesis with science is true of art, as it is of virtue, because art is a habit of the mind chiefly, just as virtue is a habit of the will. The artist could say with Kempis, "I had rather feel beauty than know its definition; I had rather compose a synecdoche or a sonata than be able to define them; I had rather write a poem than know what poetry is." Definitions are as unessential in art as they are in virtue. You may be saint without knowing the science of sanctity, as you may be an artist without knowing any definition of art.

There is no need to elaborate what after all is a truism. Art and science are as distinct as compunction and its definition, yet education is forever ignoring the distinction, and as some seem fondly to hope that knowledge means virtue, and that if you can define compunction you have compunction, so also some imagine that if you can define poetry, you are a poet. In the latter case our limited supply of poets would cease entirely: no one seems to know the definition of poetry.

For centuries education made a clear-cut distinction, restricting the arts to the primary and secondary schools and relegating science to the university. The Jesuit *Ratio Stuaiorum,* which was not a new invention but simply a codification of traditional and prevalent methods and did not differ essentially from other plans of the sixteenth century, devoted the first five or six years of its course almost exclusively to the art of ex-

pression. Grammar was not the profound science we now know, but was chiefly a series of practical guiding rules. The author, the concrete embodiment of expression, dominated the class. There was no history or evolution of literature; antiquities and erudition were cut down to the bare essentials. There was no early Latin or middle Latin or late Latin. The standard and best author was taken, Cicero, as a letter writer, as a narrator, as an essayist, as an orator. He was explained with the sole purpose that students should write and speak Ciceronian Latin. Composition, expression, literary art—these were the objectives for five hours daily from the age of ten to the age of sixteen.

That program has been criticised as too humanistic: it certainly was artistic. It taught art, which is the ability to do, by keeping the class writing and speaking. It did not make the mistake of imparting classified information through lectures and of fondly imagining that by some magic process a definition would become a feeling, a discussion would become a habit and a lecture would automatically slip into the student's ears and impress an art upon all his capacities, even while he slept.

Science has descended from the university to the lower schools. When I went to Fordham in 1885, geometry was then in Junior, one year below the university stage which then began with Senior; when I taught in Boston College High School in 1895, geometry was in second year high. Physics and chemistry have followed a like course

and are drawing nearer to the grade schools in the wake of mathematics. Formerly everything was composition. Now in the teaching of Greek and Latin, composition in those languages is either dropped or looked upon as a means to learn the science of grammar. In Latin and Greek everything is taught but composition. See Sandys' Companion to Latin Studies; Whibley's Companion to Greek Studies, Laurand's Manuel des Etudes Grecques et Latines, Harper's Dictionary of Antiquities. You can find everything in these books about the Latin and Greek authors except rhetoric and composition, the only thing studied in them during the centuries. "Imitatio est anima prelectionis," was the Jesuit motto. "Composition based on the model is the soul of the explanation of the author."

Science in coming down from the university brought with it its teaching methods. A lecture can impart science if the student will take it, and in a university with his life work chosen a student has an incentive to absorb a lecture. In secondary schools there is nothing in the student to make him absorb. The lecture does not therefore always impart its message, much less make the passive recipient react to the message. The amount of reaction is the measure of education. Then only is the student being educated when he is working. Science teachers recognized that fact early, and to meet the difficulty, the laboratory was installed. Schools and colleges spared no expense to equip their science departments. Physical apparatus was constantly replaced by

the latest inventions; chemicals were lavishly consumed; buildings with the newest improvements were built, while literary departments looked on enviously. The problem seemed solved. Students were applying science, not alone externally by touching buttons or by filling test tubes, but internally also by reasoning, by comparing and contrasting and by discovering. So at least it was thought, but doubts are now freely expressed whether our costly laboratories are really educating.

In *Studies* for June, 1926, the lecturer on education in University College, Dublin, W. J. Williams, M.A., declares that current laboratory methods in science are barren of results in Ireland, that England, whence they came, has condemned them, and that Sir Richard Glazebrook, of the Cairndish Laboratory, Cambridge, eight years ago regretted that he had helped to foist on the schools the methods of scientific research which Germany, according to Mr. Williams, wisely "reserves for the specialist student of university status."

Mr. Hugh Ryan, professor of chemistry in the same University College, says that "the real training of a chemist begins in the university." What is really of importance, continues Professor Ryan, for a chemist, is to have his mind developed by a sound course in classic and mathematics.

Rev. Edward Leen, president of Blackrock College, Dublin, continues the indictment in the same number of *Studies*. "The students' work in the laboratory was dignified by the name of ex-

periment, but in reality it was not experimentation at all. The teacher arranged, guided and controlled the work to a large extent." Father Leen calls the method educationally unsound and productive of evil results, "of pottering habits of work, distraction of mind, loss of hours of concentration." He would restrict experimentation to one period a week conducted by the teacher to illustrate his lectures. Professor Williams, in his endeavor to get pupils to react, advocates a resort to vocational education. This solution is properly rejected by the other participants in this interesting symposium.

I believe, myself, that our Irish schoolmasters take too gloomy a view of the laboratory teaching of science. There must be surely some reaction where we are using so many reagents. There is, too, some work done, some observing, some reasoning, and therefore some habits are being formed. Students are feeling a certain amount of compunction and have advanced beyond its abstract definition; they are mastering some art; they are achieving some education.

It is a healthy sign, however, that our modern educators are feeling compunction and not a few misgivings about the reaction of students. The Montessori System, the project method, the Dalton plan, and other movements, have this in common, that they take a more personal interest in the pupil and are vitally concerned that he react. In the university for the sciences at least the lecturer may with but slight twinges of conscience let his class work out their own salvation. He

gives definitions; let the hearers feel compunction. But in the secondary schools and in all arts if there is no reaction, there is no education, and pupils will not make reactions unless a personal interest sees to it that reactions are forthcoming. From the grades to the grave the knowing of definitions is not difficult. If the definition of compunction would save, no souls would be lost. The trouble comes when compunction is to be felt.

To form bodily habits is not easy; to form mental habits is more difficult, and to form habits of virtue is still more difficult. You learn to know by knowing, and definitions, though hard to prove, are not hard to know, but you learn to do by doing. The pedagogy of science is not the pedagogy of art, and both science and art are injured by forgetting that fact, which was the basis for centuries of the division in the traditional education. Science and scientific methods are dominating the programs of school, and have in some cases even invaded and perverted the teaching of art. Literature, which was always taught with a view to mastering the art of expression, has become simply a source of multiplex information, a matter of history, or, at the best, merely criticism. Students know everything about their literature, but they don't do anything about it.

Science is impersonal, unfeeling, general, mostly quantitative, placed in the cold storage of books. It has a place, a great and necessary place, in education. The pure sciences of philosophy and mathematics train mental powers which are not

reached by art. Art, on the other hand, is personal, full of feeling, concrete, mostly qualitative, concerned with ideals rather than with facts, looks to beauty and good as well as to truth. Art is human and since it is an operative habit, is located in a living, feeling soul, that soul which is the ultimate source of the art product.

If the principle of causality is true, you train what you train, and the instrument of your training cannot give what it does not possess. The reaction to science is science; the reaction to art is art, if in both cases you are a successful teacher. Science is nature, but virtue and art are human nature. Personality is needed to make human nature react. For character formation and for art formation the model, the leader, has been supreme. Granting that art is human nature, what art embodies most human nature? It is literature, and so literature has been the chief instrument in educating humanity. Neither in method nor in substance should it be supplanted in our secondary schools. Restore, therefore, personality to the class room; restore the interpreter for the lecturer; abolish the excessive departmentalism; departmentalism is another university method, appropriate for science which is divisible but not for art which is indivisible.

Discovery is the joy of science, and creation is the joy of art. Scientific discovery, all will admit, must come in the university, but creation and its joy may be had in the first moment of the first class of school life. Creation is human and is the test of the possession of art. I have noticed

that creation is an anagram for reaction and in reaction we have the secret of education. The personal appeal of literature and its artistic ideals made living by the personal interpretation of the teacher will have as its personal reaction, that test of a true artistic education, creation.

THE SCIENTIFIC APPROACH TO THE CLASSICS

IN a famous essay, which attained something like immortality by coining a new term or, perhaps it were better to say, by extending the usage of an old term, Thirlwall drew the "rather melancholy inference" about Sophocles more than seventy years ago "that the study of the poet's works, with a view to the pleasures of the imagination, has not kept pace with the diligence bestowed upon them as objects of philological research." (*Philological Museum,* Vol. II, p. 522.) The essay, "On the Irony of Sophocles," was a splendid example of the study whose neglect Thirlwall mourned, and no one who has the slightest acquaintance with the dramatic art and criticism of the last quarter of a century is ignorant of how deeply it is indebted to Thirlwall's Sophoclean irony. It cannot be said, however, that the author would be likely to draw a more cheerful inference if he were living today. Greek and Latin are still studied more as a means to acquire a science than as objects of art and artistic pleasure.

Comparative Philology seems resting on its oars. The science of history and historical sources is enjoying more favor. Archaeology has

leaped into popularity by wonderful discoveries of recent years, and the latest science, comparative religion, is vying with archaeology for attention. It is impossible to deny the great advantages conferred on Greek by all these sciences. The contributions of philology and history are well known, but we are just now entering into the rich treasures which have been unearthed from the dust of ages by the spade of archaeology. Whole chapters have been added to the history of Greek literature. In fact, a complete link of the language, connecting the classic and the post-classic periods with the Byzantine, may be said to have been discovered, so fully have many gaps been filled up by the papyri of the East. The Greek of the New Testament is receiving fresh treatment and far fuller than was hitherto possible.

Not only new chapters of Greek language, but periods and new ages of Greek civilization, are rising from the graves where they have slept for centuries. Great numbers of inscriptions are awaiting deciphering to complete by their accounts the pictures of Cretan life, a life which had been completely lost, and now appears in painting and architecture, in vase and statue, furnishing traces of a people whose art and science are startlingly modern. It is not at all strange that nearly every modern nation is now represented in the lands about the Mediterranean by archaeologists striving to repiece the records of the past out of the broken fragments of buried cities.

What wonder that all these fair fruits of

archaeology should be winning the study of the classics away from the pleasures of art to the theories and facts of a new science. Even our school books feel the influence of archaeology. The most recent edition of the Anabasis is as liberally illustrated as a book of Schliemann or a dictionary of antiquities. Surely the good teacher will welcome these helps wherever a picture will dispense with a long explanation and bring him by a direct route to his author's meaning.

As Webster said, after an opposing attorney had exhausted everyone by a learned and involved description of some patented wheels, "There they are, gentlemen of the jury; look at them," so a teacher may point to the greave and corslet and war-chariot, and save himself much expenditure of useless energy. If archaeology is made a means, it serves a good purpose, provided a certain care is exercised over the antiquities reproduced. Some of our archaeological text books keep under the persistent attention, which a pupil must give to his book, pictures that the most hardened daily papers would not dare to reproduce for the brief glance of one day. The moral evil, though more important, is not, however, the point at issue now.

Homer and Homeric criticism may very well serve as an index to all the sciences which revolve around the classics. Whatever science may be the latest bidding for individual attention in the study of Greek, it is sure to fasten upon Homer and the eternal Homeric Question to

exploit its conclusions. *Homer and the Iliad* (1909) by F. M. Stawell, is more linguistic than archaeological. She (the writer is a woman) has succeeded in giving satisfactory proofs that the Iliad and the Odyssey are to be referred to one author and has handled the linguistic argument with great skill. One feels that a more complete application of her principles will succeed in establishing the substantial unity of each poem, which is usually considered a less difficult task than proving that both poems had one author. The student of Greek who is in search of artistic appreciation will find very much to help him in *Homer and the Iliad*. There is a sympathetic treatment of the character of Achilles, laying much stress, as one might expect, on the traces of gentleness in him. Lang seems to approve of the interpretation which to some might appear forced. There are, too, many other good points on style which a student will find helpful and attractive.

The philological method of handling Homer possesses this advantage that, as the language is the chief end, the study will be near the confines of art and will occasionally enter upon them. But when archaeology takes hold upon Homer, the literature disappears. Thus Lang's *Homer and the Epic* (1893) is very interesting reading in the main. The student of epic poetry will find much in it about poetry and about epics, in a word about Homer, who is nothing if he is not an epic poet. The art instruction is, it is true, indirect; because Lang is championing Homer against a host of German critics and a few English ones,

but the methods are linguistic and comparative and rest upon the principles of art. Lang's more recent books, however, *Homer and His Age* (1906) and *The World of Homer* (1910) are with the exception of a chapter or two wholly given over to archaeology. The former was disheartening enough, but the latter moving among the monsters of mythology and handling the other gruesome subjects in which folk-lore and comparative religion delight, is worse still. No blame attaches to Lang. He deserved the thanks of all lovers of Homer for his vigorous championship of Homer. No one probably regretted more than he that "the sacred soil of Ilios is rent with shaft and pit." He would gladly "turn and see the stars and hear, like ocean on a western beach, the surge and thunder of the Odyssey."

Lang's heart is felt in his book in many a line of silent protest or what would seem protest, that the enemies of Homer's "crown of indivisible supremacy" forced him to take such weapons. No lover of Homer but is glad to see him overcome one after another every enemy who lays a rebellious hand upon that crown. The limbs must sweat in such a conflict, and the hands be soiled that stoop like Homeric heroes to throw the stones of earth against attacking foes. We honor the conflict; we proclaim the hero; we rejoice in the last battle where Mr. Gilbert Murray with his *Rise of the Greek Epic* goes down to defeat and has his new theory of "Expurgation" worsted. But all this cannot make us grow enthusiastic over the sweat and the earth. Lang of the Ho-

meric sonnets is more to our liking. When we read his sonnets we want to read Homer; when we read his books we cannot see Homer for the shields, and spears, and copper, and iron, and tombs, and funeral rites, and purification processes. Had Lang written us a book on the art of Homer, we would care not for the archæology. Let us have less pottery and more poetry. With Thirlwall we would have "the study of the poet's works with a view to the pleasures of the imagination," not as objects of philological or archæological or mythological criticism.

UNITY OF EDUCATION THROUGH THE ART OF EXPRESSION

THE need of coordination in the teaching, especially of languages, receives more and more attention from educators. For instance, in the *Classical Journal* for June, 1918, Professor Burr of Beloit College says that Latin is to be compared at every step and in every lesson with the mother tongue (p. 626). Professor Painter of New York State College writes that "the contribution which language makes to the understanding and right use of our mother-tongue is its most vital and practical significance for the average student" (p. 636). Professor McCrea of Columbia University urges the Latin teacher to become familiar with the books studied in the English class room. "We could then," he says, "by explicit references and quotations coordinate the work of the two classrooms" (p. 663). The Classical Association of New England sent out in 1917 the following question: "In the teaching of Latin would you recommend that emphasis be laid upon English vocabulary building and the literary features of the author read, with the study of forms and syntax made not an end but a means to an end?" The question was addressed to school superintendents and educators. Out of the 153 replies, 146 answered yes.

This cry for coordination heard insistently on all sides indicates a pressing evil which has resulted from the departmental system of modern education. The problem did not exist in the simple, well-ordered schools of former days, even of thirty or forty years ago. The evils of excessive specialization of mere information, instead of educated faculties, of neglected essentials and half-learned fads, of students who have a smattering of a thousand "isms," and a conceit fattened with some highly technical terms, and who at the same time cannot write or speak their own language; these are evils which may be traced to the multiple and unrelated education of our time. We are all creatures of our times, and are subject to the current educational fads and fashions. While we must be always willing to welcome the good, we must be watchful against the evil, however specious the guise under which it presents itself.

Lack of correlation or coordination is an evil admitted by all modern educators. To find the remedy, investigate the cause. What produces the multiplicity of modern education with its host of unrelated subjects and what was the secret of former simplicity and unity? The theory of education from earliest days to less than fifty years ago can be easily stated. The chief purpose of primary school, high school and college was to train the powers of expression, to make the student master of writing and speaking. After the student could write and speak, it was believed that his faculties had been somewhat trained, and

he was then allowed to apply himself to any science, to any profession to which he felt himself inclined and adapted. In this system there was perfect unity during the formation period. There was not simply a series of subjects running on parallel lines, all leading to a different science or art, but there was one art, that of language, set as a goal, and all the chief means were focused upon that simple goal. Only when the art of self-expression was attained was there radiation to the multiplicity of sciences and arts found in the university, and in the world.

What, on the contrary, is the situation today? University aims and university methods have worked down first on the college, then on the high school, and then on the primary school. Catholic schools, partly through conservatism and partly through a happy lack of funds, have resisted longest the disintegrating tendencies of modern education. Modern schools have their highly specialized teachers for a hundred and one branches, each one striving to fill the memory with the technical terms and systematized information of some science. The old system held to the supremacy of language, mastered as an art, and insisted on the power of speaking and writing as a means of education and as a preliminary to university work. Ex-President Eliot advocated all sciences as a means of education. Culture or educated faculties, he claimed, could be gained from "chipping and filing and sawing" and, apparently, from anything else. Modern schools followed the lead of Dr. Eliot. Sciences

multiplied rapidly, and everyone of them knocked at the door of the schoolroom, even of the primary schoolroom. Then came the theory of vocational study, and a thousand trades demanded admittance into the schools. Then came the social wave, and it swept down upon the schools to make them centers of social work. False theorists approved, declaring that man was not one being, but a collection of many tendencies or capacities. They despised the word "faculties," although they admitted the reality under other names. Other theorists said that there was no transference of training. You trained what you trained, and there was no such thing as discipline and development of the intellect.

As a result, these multiplied sciences, these many trades, and these false theories, with the help of patient tax-payers, have made of our schools laboratories, foundries, machine-shops, offices, farms, newspaper-rows, parks, art galleries, flower-gardens, zoological parks, dairies, gents-furnishing, ladies-tailoring, kitchens, dance-halls and what not. In a word, school is being transformed into a miniature of the world, and there are some educators who grow enthusiastic over it all, and welcome into every school, not only the world and all nature, but the universe, from the tiniest particle disclosed by the microscope to the most distant mass picked up by the telescope. Finally, the wonder of the age and latest source of multiplicity, the moving-picture, is going to revolutionize education, and now is at the door.

A plain, simple man might ask after all this if the school is to become a toy universe, why have school at all? Why not distribute the children around each morning, some to the woods, some to the parks, others to the morgue, department stores, or manufactories, all ending up at the "movies," under the leadership of a megaphone mounted on a sight-seeing car?

You will say that I am caricaturing and drawing the black lines with too heavy a hand. Well, caricature is a legitimate means of centering attention upon an evil, and of stimulating effort to remove the evil. At all events, you will admit that there is lack of coordination in our schools, especially in the schools supported by the public money, and in schools more likely than private schools to be made the subject of experimentation. On the other hand, in the past there was simplicity and no lack of coordination. Examine now what was the source of the unity and coordination throughout the past up to the school days of most of us who are now reading this chapter.

Take, for example, the Jesuit system of education, which was not intended to be a new discovery, but was, and is, a choice of what has proved itself best in the history of education. How was coordination effected in the study of languages? First of all, the Jesuit system, as all other systems until yesterday or the day before, divided schools into the upper or scientific schools, of law, medicine, theology, and other sciences, and into the lower schools, where language held the chief place. By separating

language study from the intensive study of science, by keeping in the lower schools language supreme and other things subordinate, order and clearness resulted, and the way was cleared for perfect coordination. The language of science and of the learned world was Latin, at the time the Jesuit system came into being. Greek, modern languages and the indispensable erudition of history, geography and mathematics, all were subordinated to Latin. In the course of time the emphasis has changed. Latin, except for the Church, has ceased to be the key to science and learning. The national tongues have come to the front, and there is now a difference of emphasis. Latin tends to fall into the place that Greek formerly occupied, and, outside of the Church, instead of being an end in itself, it has become an instrument of education.

Former systems, therefore, avoided multiplicity and lack of coordination by separating the intensive study of science from the intensive study of language, and by subordinating to the art of expression all information studies. In the next place, former systems avoided multiplicity by keeping to one chief purpose in teaching language. Expression was the practical goal, the art of speaking and writing. Former systems did not treat language as a university subject in the lower schools; they did not study language as a science, but taught it as an art. There were no lectures on the history of literature, the tendencies of literature, the evolution of literature, the philosophy of literature, but there was a great deal about the

art of literature. "Reproduction is the soul of the literature lesson," is the way in which the ideal was expressed by Jesuit authorities. A sentence was explained that the student might write a sentence; a letter was explained that he might write a letter; a poem was explained that he might write a poem, and a speech was explained that he might give a speech.

Again in former school systems, the precepts or rules of art were carefully graded, following the well-known qualities of style, clearness, interest and force, and these precepts were taught in classes of grammar, literature (*belles lettres,* humanities) and rhetoric. The languages were not taught with different purposes, but all languages were focused on the same point, as far as possible. Authors were chosen and graded, not to illustrate the history of literature but to teach writing and speaking. Exercises were based on the authors and exemplified the precepts. In this way all multiplicity was avoided. There was the strictest correlation; there was unity, one teacher using several languages for one definite end. Professor Goodrich of Yale exemplified this method in his "British Eloquence," he taught English oratory, and used Demosthenes and Cicero, and English speakers, to make orators. This system is exemplified in Kleutgen's well-known rhetoric, *Ars Dicendi,* where Latin, Greek and Italian masterpieces of poetry, oratory, and of other types of composition, are studied side by side, to illustrate the same rules and to teach the art of expression.

How then may you have perfect coordination in the teaching of languages? Avoid a multiplicity of information subjects and any early specialization in them. Center on expression as the chief purpose of language study from the early grades up to the first years, at least, of college. Subordinate the rest of the course to the art of writing and speaking. Follow Professor Gildersleeve's splendid advice, giving a minimum of precept, a maximum of practice, and having early contact with the authors in continuous passages. Grade your precepts and your authors to exemplify the precepts. Teach letter-writing through Cicero and English models. Teach narrative through Cæsar, Xenophon and Macaulay, or Irving. Teach the simplest of short stories through the fables of Æsop, Phædrus and Gay. Teach the essay through Cicero, Plato and Newman. Teach epic poetry through Homer, Virgil and Milton. Teach lyric poetry through Latin, Greek and English poets. Teach pastoral poetry through Theocritus, Virgil and Tennyson. Teach the drama through Sophocles, Plautus and Shakespeare. Make your pupils speakers with the help of Demosthenes, Cicero, and the orators of England, Ireland and America. Have one book of precepts for each of the arts of rhetoric, poetry and essay-writing, using the same terminology for all languages, and illustrate the same rule simultaneously from the different authors. Have one professor for the three languages. To divide the languages among different professors would be to multiply them unnecessarily, and to

destroy the unity and simplicity of education. Do not have professors of Latin, Greek or English, but have professors of oratory, of poetry, of essay-writing, of correct expression, of forceful expression, of interesting expression, using all languages for one art.

This system has succeeded in the past, is succeeding in the present, where the well-tried and fruitful methods of experience have not yielded to ceaseless experimentation. With this system there never existed the problem of coordination which vexes our modern educators. There is no coordination; there is something vastly better; there is supreme unity; there is education and power.

I have not attempted to determine where and to what extent information-subjects and sciences are to be introduced along our courses. My prime purpose was to examine the correlation of languages, and I would urge the mastery of the art of expression, before any intensive study of the sciences. True science will be helped by the fact that its students can write and speak good English, and can, consequently, think.

ART AND SCIENCE IN TEACHING GREEK

THERE is a difference between teaching and tutoring. The tutor has only one or two under his care and can and should fit his instructions to the needs of his students. A teacher must look to the good of many. Tutors can be electivists because they know needs and can reasonably prescribe means. Electivism, after all, is a prescribed course for one. Teachers cannot be electivists or specialists. They must choose for many, subordinate the private good to the public good, and so must look to the common interests in their work. In speaking of Greek studies we refer to teaching, not to tutoring. The teaching of Greek ought not to be archeological or philological or mythological, because those sciences are not of the greatest interest to the greatest number. They are for the tutor to elect; not for the teacher to prescribe.

The teaching of Greek may avail itself of the sure conclusions of all the sciences which swarm about the classics; it ought not to subordinate itself to the acquisition of any, because that would be to force upon the many what is of interest to the few. If Greek is to be saved, it must be taught with a view to bring out its abiding and universal interest. What was it that attracted

and fascinated Italy at the Renaissance after seven hundred years of almost complete forgetfulness of Greek? It was Homer principally and the poetry of Homer. If the forerunners of the revival of Greek had to reach Homer through weary wastes of philology, through bewildering theories of authorship, through myriads of hideous myths, and the fragments of broken crockery and battered armor, then it is quite certain Greek would never have had a rebirth. Interest came before application; the love of the whole before concentration upon a part; the charm of art before the seriousness of science.

Happily there are many books which introduce readers to the wider appeal of literature. Such are the works of Professor Mackail, Professor of Poetry in the University of Oxford. His freshness of view, his restrained but sincere enthusiasm, the crystallization of characteristics into a sparkling phrase, are all admirably adapted to making Greek or Latin attractive. His edition of the "Anthology" is well known; his *History of Latin Literature* is a marvel of condensed and illuminating criticism; his *Lectures on Greek Poetry* (1910) is satisfyingly replete with the qualities found in earlier volumes. Noteworthy is the fresh use he makes of the device of parallel passages, a device which is likely to become hackneyed and conventional in less skilful hands. The Homeric epithet, the Homeric simile, and the Homeric "ethical line," each in turn is brought home to the reader with the novelty and charm of their original invention.

There is the ideal of the true commentator: to bring the reader into sympathy with the author, to touch up the colors which custom has dimmed and bring them to bear upon a receptive mind with their first brightness. No wonder Prof. Mackail has confidence in the cause of Greek. It lives so vigorously and buoyantly for him that he cannot conceive of it as anything else but immortal.

Says Prof. Mackail in his Lectures on Greek Poetry:

The position of Greek as a factor in culture has never been more assured than it is now. It moves beyond reach of the attacks of those who fancy themselves its opponents, and the alarmed outcries of those who profess themselves its only friends. It exercises over the whole modern world an influence astonishingly potent and persuasive. The danger now is, not of Greek being studied too little, but of its being on the one hand pursued too hastily and carelessly, and, on the other hand, distorted under the pressure of a specialization which continually becomes more exacting in its demands.

It is encouraging to read this cheerful paragraph, which has been given here in an abridged form; and if our lot were cast among the learned shades of Oxford and not among the cries and feverish rushing of modern trade, it would be easier to share in this sanguine assurance of Prof. Mackail. The Mussulman and the barbarian have once before thrown Greek literature to the flames, and modern pleasure and modern greed

will scarcely be more merciful. Yet if these monsters will ever be induced to spare, it will be because of writers such as Prof. Mackail, who by their illuminating enthusiasm for the author's message and ideal have made the pleasure and profit of the mind alluring to jaded sensualists and wearied money-makers.

Another writer who has been bringing out the artistic and better side of Greek study is Prof. W. Rhys Roberts. He has edited Demetrius on *Style* (1902), *Longinus on the Sublime* (1907), and now has added to *The Three Literary Letters* (1901) of Dionysius of Halicarnassus the same author's work on *Literary Composition* (1910). These are the writings of literary critics who read Greek as we read Shakespeare, who were not halted on their way to the author's meaning by endless notes on archeology and mythology. They went straight to the heart of their author, and, if they paused upon his language, it was not apart from the full message he was bearing, but in order to understand that message better. They were Greeks reading Greek, and it is the happy and successful task of Professor Roberts to make us see and appreciate how they do it. When it is remembered how profoundly Professor Butcher's well-known work, *Aristotle's Theory of Poetry and Fine Art,* has influenced modern literary criticism, especially of poetry and drama, there is good reason to believe that the introduction to the modern world of these other Greek critics in an attractive and sympathetic edition will have no less wide or less effective an influence. If

Professor Roberts does no more than prevent modern American rhetoricians from heralding as new discoveries what have been commonplaces in literary criticism from the beginning, his work will have amply justified itself.

There are two marked tendencies in the study of Greek, the scientific and the artistic. Which should find its place in education? Both, of course; but not in the same way. Confining the discussion to the classical languages and not entering into the wider question of what place science should occupy in the general scheme of education, we may safely assert that the earlier study in Greek and Latin should be predominantly artistic. Such it has ever been and such it should continue. In the study of literature as an art is its practical utility. Professor John J. Stevenson in the *Popular Science Monthly* discharged several tremendous broadsides at classical education. When the smoke cleared away and the echoes died down, it was found that the esteemed Professor had aimed his artillery at the clouds.

His argument in brief amounts to this: the old pagans, from Homer down to Horace, had lax ideas on the marriage bond; the Greek and Latin scientists did not know the chemical constitution of water; therefore give up the Classics and study the latest encyclopedia. How Professor Stevenson could have been so long on the faculty of New York University and not have discovered that Greek and Latin are not studied for their morals is a mystery. The practical utility of the Classics is not in their information

but in their formation. It is hard to have patience with people who speak of utilitarian studies and then sneer at the Classics which are studied precisely because they are the most utilitarian of all studies.

We should certainly look upon that surgical operation as decidedly useful which made an eye see or an ear hear. It will be decidedly useless to put a piece of gold in my hand if my fingers have no power to grasp it. Now the Classics are directed precisely to giving efficiency to man's whole mental equipment. The so-called utilitarian studies go looking around for landscapes and orchestras; the true utilitarian studies furnish the eyes and the ears. We do not take our morals from Latin and Greek authors or even from modern writers; we do not take our science either from the ancients unless they had all the data which we have to conclude from, and then the scientific conclusions of the ancients have not been surpassed, but we do go to Latin and Greek for efficiency, for the power of self-expression. An educated man has a memory that remembers and an imagination that sees clearly and with originality, and a taste which reasons logically; in a word, he has faculties which act, which serve him to express himself and to assimilate the expression of others. For each of these faculties there is an art. It is the profession of the Classics to develop in the faculties of man efficiency of art, at least in its first stages.

The classical languages are the most perfect literary expression we have of man's faculties and

so the most competent to teach the art of self-expression. The classical languages because they are foreign are for that very reason better suited for the purpose of teaching the art of expression. In our native tongue we run on with the sense; it is an effort to pause upon the expression. In a foreign tongue we are perpetually halted upon the words and sentences and larger elements of expression; we reflect upon them, we appraise their value, we criticise, in a word, we master the art. The earlier study of Greek, then, should lay stress upon the grammatical qualities, the imaginative force, the choiceness of vocabulary, the harmony of sentence, the truth, the beauty and power of language, all leading up to and centered upon the writer's full meaning.

DEPARTMENTS AND CLASSICAL TEACHING

AFTER the retirement of President Eliot from Harvard the protests against his favorite system were numerous and vehement. Professor Lodge, of New York, did not hesitate to say in *The Classical Weekly* for October 22, 1910: "Teachers of the Classics who have been for years striving by means of their work to develop the minds of the students under their influence and instil into them habits of exact and continuous study, have understood fully the fallacy of the elective system and the immeasurable damage done to the cause of pure culture by the work of ex-President Eliot, of Harvard University." The same writer further quoted Professor Manatt, of Brown University, who was even more vehement in the May number, 1910, of *The American College*. "You know as well as I do," says Professor Manatt, "how the intellectual and spiritual climate has changed in our time; how our seats of learning have become seats of everything but learning." President Eliot closed his administration "as the advocate of a three years' course which might include such broad and liberal studies as coal mining, ore dressing, foundry practice and blacksmithing!

Specialization making sharp men and dissipation making shallow ones had run full course, not at Harvard only, but in the college world at large." "Mr. Lowell," he continues, "has begun well by scotching the hydra that beset the springs—the myriad-headed monstrosity dubbed free election, which really spells damnation. But it remains to be seen whether even a Harvard president can graft a back bone into a jelly fish." We must return, is the Providence professor's conclusion, to "man-making studies," "just the good old humanities with their source and center in Greek, but radiating out (as all Greek things do) into manifold developments of sweetness and light and power. We cannot with impunity drop Greek out of our national culture. That has been done more than once in history and always with disastrous consequences."

Sir Oliver Lodge came out strongly on July 9, 1910, for Greek where we should least expect it, in the University of Birmingham, England. A representative of modern science was addressing a representative modern scientific university. His remark that "their most pressing need on the educational side was a chair of Greek," was greeted with applause. The London *Daily News* commenting two days after on the significance of this pronouncement says it need cause little surprise. "Sir Oliver Lodge justifies his demand by emphasizing the value to the world of poetry and literature generally, but the claim of Greek does not rest upon that ground alone. The truth is that there is no body of literature so inspiriting

and so suggestive to the intellect as that which is enshrined in Greek, and to dip into it is an indispensable part of the education of even the most practical person." "Even the most sternly realistic men of science," it goes on to say, "can profit by the Greeks, who make the mind pregnant and put it into a condition to bring forth the best that is within itself."

The reaction against the elective system has begun to show itself in other ways. The merits of the departmental system and its shortcomings are the subject of a thorough study in *The Classical Journal* (October, 1910). Just as electivism tends to eliminate Greek, which is a subject that presents the most initial difficulties to a young imagination, so it would seem that the departmental system has been found in practice to tend to injure all classical studies. The writer of the article, "The Classics and their Allies," very shrewdly observes that studies with a single specific result, such as commercial courses, typewriting, let us say, fare better under the system of separate teachers, but many-sided work, on the other hand, whose results are often unobtrusive, such as that which the classics are called to do, will easily appear like shooting with a blunderbuss—aiming at nothing in particular and hitting nothing in particular." An instant will show whether one can typewrite; a much longer time is needed to determine whether one can think. Trained fingers are more quickly evident than trained brains.

It is pitiful to read of the attempts of many

teachers whom the writer consulted, to bring together the different departments in teaching, and it is consoling to the Catholic schools, which have held to traditional methods, to find that the sad experience of others is convincing proof that they are not wrong in rejecting electivism and in refusing to adopt the department system of teaching. Chicago unites with Providence and New York in joining the universal outcry against Eliotism. The writer in *The Classical Journal,* after stating that the elective system has "left the course of study in an unbalanced and chaotic state," makes this remarkable admission: "The most effective way to correlate two lines of work is to have them both taught by the same teacher. This is the method of the German gymnasium, and it is only our departmental blindness which keeps us from seeing that it would be infinitely better for both the pupil and the teacher if the latter had several related branches to teach, instead of several sections of a class doing exactly the same work in the same subject, as is often done. In those cases where such a combination of several lines of work has been given a trial, the testimony is practically unanimous as to the excellent results to be obtained from it." Where could one find a more complete and more solid vindication of the traditional class system followed in most Catholic schools? Another modern educational idol topples from its feet of clay!

THE IDEAL SYSTEM OF MORAL TRAINING

IT must not be thought that because it is difficult to formulate one's theory of morality or explain one's motives, therefore there are no motives. Motives do and must exist. Without them there can be no action. At first, such motives are embodied in parents and teachers whom children trust and obey. "We desire," says Sister Mary very truly in her excellent monograph [1] on moral tests, "our children to be morally developed. The only way to accomplish this is to train the child from infancy in the performance of specific moral acts. This training must go on at all times and at all places to be effective." The science of ethics teaches that no act of a rational being is or can be in practice devoid of morality. Therefore children are trained in virtue by every conscious and deliberate act. Habits of health, habits of deportment are developed from infancy. The motives of obedience in these habits and in virtuous habits should be made to appear reasonable when the child is in condition to act from enlightened motives, but as in health, so in morality faith is and must be for the larger part of

[1] "A Study of the Moral Development of Children"; *Psychological Review,* Princeton.

mankind the necessary condition for action. All cannot be doctors nor all moralists. No average will show us what can be done but only what is perhaps being done at the time of one test, and motives are operating consciously and rationally long before they can be satisfactorily expressed to an examiner.

Religion offers the most pervasive and the most impelling motives for morality and did not history show a close connection between morality and religion, the nature of religious truth would show the connection. The goodness, the mercy, the justice of God and His all-seeing eye, if these facts are transmuted into motives, pervade and dominate every act, even the most secret of the human heart. Religion, too, furnishes mankind with the noblest ideas of morality and the finest exemplars of such morality. The problem of the educator is to bring religion to bear upon every act, through good parents, through good teachers, through attractive ideals, through motives of loving faith and finally through enlightened motives, when and how the best, and not the average, experience of mankind has shown such great motives can be made intelligible and can be even in some cases adequately expressed by children.

The most serious detriment to education which is likely to follow from the use of average tests is the substitution of the average for the ideal. Some have thought such a result improbable and illusory. Yet we have instances of tests based on the single performance of a few, and these tests averaged on still fewer, and the suggestion is

offered that such tests should be made the standard. It is true that the average of any higher age may be made perhaps to serve as the ideal of a lower age, but "I am as good as the next" is a motive to which human nature is only too much prone and a motive that is usually a salve for laziness. What does the athlete do? What the stock-raiser? Burbank wishes to improve the strain. Does he take the average or does he take the exceptional? Do we study art from the average artists? What we should be glad to have from testers would be the record and history of those who rated highest in moral tests. From them we might have learned some new methods of developing morality or at least of cultivating early and vigorous concepts of morality.

The extreme modern position demands that every phase of education be subjected to empiric tests, but it is conceit or excessive idolatry of the present which would attempt to refashion all the education on tests, and on those tests that give the average of a limited number in contemporary America. What of the pragmatic probation of time! What of the empiricism of history! Why not test all ages and all countries if we are to fashion a school of morality! Test empirically every child of the world if you would draw up a program based solely on average, the low average of mankind.

Moral reforms have not originated in the average of the multitude. Reforms are the product of individuals, discontented with the average and inspired with the ideal. Look at the Religious

Orders of the Catholic Church. Their individual founders all initiated schools of morality. St. Benedict and St. Ignatius, with many another would contribute vital elements to one who wished to draw up a course in virtue. Such a one could take the humanity and Christian naturalism of St. Francis of Assisi, the crystal-clear and university comprehensiveness of Aquinas and other sons of St. Dominic, the cultured college methods of the soldiers of St. Ignatius, the living vigor in the schools of St. John Baptist de LaSalle, and the educational wisdom of hundreds of others. Surely we Catholics have materials for fashioning a perfect system of developing virtue. If we have to go elsewhere at times for the principles and practice of other teachings, there surely is no need to do so for moral teaching. What are the Spiritual Exercises of St. Ignatius Loyola but an intensive training in sanctity? They have been tested empirically for centuries; their moral training is for the adult, but is there in the Exercises no curriculum of virtue, no project method of goodness, no grading, no system, no pedagogy of the soul which could be applied to the developing of children's characters?

Suppose that nineteen hundred years ago some candidate for the doctorate at Rome or Athens or Jerusalem had sent out questions on morality and tabulated the answers of a thousand Roman or Greek or Hebrew children, what would have been the average ethical knowledge in that case? What tables and tests would there be to publish in the monographs of ancient universities?

That average, we may rest assured, would not have had any of the divine ferment which then was beginning to leaven the world in Palestine. There the ideal, the divine ideal, was presented even to the little ones, and they in faith and obedience grasped it. There began the most wonderful, the most tremendous experiment in moral education ever attempted. A day that has witnessed nineteen hundred years after His death a Life of Christ as a best seller, has potent and palpable proof that the Gospel enshrines still supreme motives and perfect methods to integrate a sublime course of moral teachings if our educators would test that book and standardize the ideal and not the average.

MORAL TRAINING WITH DEPARTMENTS

LOYAL Detroiters resent the common impression that they have but one industry to make their city famous. They may now point, if not with pride, at least with a slight relief, to something else which the city has fathered, the Detroit Platoon System. The problem of the crowded school is met in Detroit by application to the school of "big-business" methods. Perhaps this experiment of Detroit, which educators are watching closely, may not succeed to the satisfaction of its people in increasing the now restricted fame which clings to the city of automobiles. Standardized production has certainly made money, but can it as successfully make men?

"Big-business" divides its production into separate stages, each one of which is defined and stereotyped and made to conform to a pattern, ensuring the success of the total product, whether that product is assembled into an automobile or battleship or disintegrated into the multiple output of coal-tar or of a Chicago pig. The Platoon System likewise divides education into sections and the students into fixed groups. These groups pass from room to room in succession, receiving at each stage from different teachers, definite

instruction in study or work or play. The Platoon System would seem to be the extreme application of departments to primary education. It is one way of meeting the problem of the crowded school. The older way was to divide classes into more sections, keeping as many of the subjects as possible in the hands of one teacher. The Platoon System on the contrary divides education into sections, has each teacher to do only one thing while the pupils move past. After another fashion of "big-business" the system has also shifts of teachers.

The automobile is quickly fitted together in the assembling room because all the parts are gaged to the proper standard, and because the master mechanic is at hand to fit part into part and to remedy any deviation from the normal which might prevent perfect assembling of the finished product. Will the Platoon System have perfectly gaged the parts of a complete education? Is there some one who will assemble the parts or will the student himself patiently fit all together and roll away in a smoothly running education? While Detroit is performing the experiment of extreme departmentalism, it might be well to consider what effect such a system is likely to have in developing the character of the students.

Science, being truly established and logically classified information, can be divided in itself and can be imparted piece-meal by different instructors. Theology, ethics, catechism, all may be divided into books and chapters and even into questions,

and it is easy to imagine an instructor for each book or for each question, although there might be difficulty in understanding a babel of teachers and in evolving standardized lessons of the proper length with just the right amount of explanation. A perfect grasp of science does not always crystallize out of a solution fed from several sources. Yet in spite of many difficulties in practise the possibility at least of dividing a science in substance and in instruction can scarcely be denied.

Can we imagine art or virtue divided or even divisible? Theology is not Catholicism in practise; ethics is not morality, nor is the catechism character. Art and virtue are habits. They represent a large number of human capacities which have been severally and often made to work, have been coordinated to one end, some as chief agents, others in subordinate positions, but all terminating in one indivisible, vital act, as multiple in its combined causes as breathing or digestion but more simple and unified in itself than even those bodily habits! Art and virtue result from doing; science results from understanding solid and classified information. In no education can either process be wholly separated from the other, but it would seem to be evident that the teaching of science must be different in nature from the mastering of art and the acquiring of virtue.

Today throughout America there is abroad an agitation for religious training in the schools. That our young should be virtuous as well as learned everyone will cordially desire, and it

indeed would be tragic when all had agreed upon the necessity of moral training, that there should be a system in operation which lessens or prevents such training. What however are the reasons why we cannot hope for the best moral training from the departmental system, even where it has not been stereotyped into the Detroit platoons? The reasons are many. First of all divided and separate agents cannot produce a unified effect such as morality. Even the mechanical unity of an automobile requires an engineer to plan and an engineer to assemble, and where have we either in the departmental system when there is question of moral training? The students are their own engineers and own assembling room; the teachers are almost as distant as instructors by correspondence.

Again, virtue is acquired by acting repeatedly from good motives. Such motives, especially in the case of the young, are not conceived in any abstract or ideal fashion. The motives are localized in the teacher, in the one to whom they must give an accounting or from whom they look for approval. "Who is that you were talking to?" said a college student to one of another college. "That is my teacher," was the reply. "Your teacher?" continued the first, "why, I've never spoken to one of my professors outside of class." In the home, father or mother is the concrete motive which forms virtue in the family, but where a faculty resolves itself into a series of separated bureaus with no more personal appeal than the apertures in a bank or a railroad station,

where is the student's living motive? We have little love or fear for the cashier or ticket-agent; we have bought our ticket and cashed our check, and we do not know even the names of those who served us.

Responsibility is something that can hardly be divided, and that is another reason which makes moral training difficult under departmentalism. Who is responsible for the student's conduct, where there are many instructors? The morale of an army, the integrity of public officials, the honesty of employes, are all responsive to responsibility. The law requires a sanction; commands and regulations call for the watchful eye and the exacting inspection of an overseer. Lessen responsibility or make it uncertain, and to the same extent you make action uncertain, and therefore moral training precarious.

History and even experience show that all moral and religious movements begin in individuals and are propagated by individuals. Even in so wonderful an organization as the Catholic Church reforms and improvements rarely begin in the body and spread to the members, but rather they begin in the members and spread to the body. Why so? Because virtue calls for the appeal of personality. "First shoot round corners and you may not despair of converting by a syllogism." "Persons influence us, voices melt us, looks subdue us, deeds inflame us." So declares Newman. It is good which impels to action, good embodied in a person, who becomes the object of affection, who elicits loyalty, who grows into an ideal.

Such a leader becomes the inspiration, the model, the constant incentive to virtue. Personality is all persuasive in moral training. That is why mother and father are paramount in forming or injuring character. We all of us have had many teachers who have been excellent in virtue, but who of them have influenced us, who still are our ideals and still fashion our conduct? Evidently not those whom we met a few minutes a day or a few periods a week, but those whom we came to know through many hours of intercourse. No teacher can become personally interested in a score of platoons which file by on parade, and no student can find an inspiring friend in a teacher who has as much personality as an automat, handing out slices of knowledge to the tinkle of a bell just as the revolving tray distributes food to the clink of a nickel.

The movement to bring our children during an hour a week to different churches for religious instruction is no doubt better than nothing at all and is an acknowledgment that religion is a necessity. For moral training, definite teaching, high motives and appealing sanctions are indispensable, and religion furnishes all three of these helps. A return however to smaller classes under one teacher teaching several branches three or four hours daily will do more for moral training than the addition of another department through which the platoons must march. The high moral and religious character of our teachers in public as well as in private schools cannot be questioned, but that fine store of spiritual energy cannot

under the departmental system be brought to bear upon the students. Character is more perhaps a by-product than a direct product of education. Daily contact with a high character acting on high moral motives will result in the character formation of a class if the class can succeed in knowing the teachers, to come under the sway of their lofty ideals, to admire them and give them the affections of impressionable hearts. Make the classroom a home with a second-mother or a second-father in it and not a transient stopping-place for platoons forever plodding onward, and then you will have more likelihood of moral training. Departments can furnish information in passing, but a passing force cannot develop art or virtue both of which are permanent habits, one chiefly in the mind, the other chiefly in the will.

THE PEDAGOGICAL VALUE OF HISTORY

1. *Value in the Lower Schools*

WHAT is the teaching value of history? Put the question to different ages, and the grade-school pupil will tell you that history is something about Columbus and Washington, 1492 and 1776; the high-school student will call it a bore; the college man dubs it a joke; the post-graduate, wearied with research, deems history a sawdust pile of references and statistics; the world styles it an illusion or a conspiracy against truth. Mr. Ford, who cannot find flivvers mentioned in ancient, medieval or modern history, considers the past as antiquated and as useless as a 1900 model. Even thinkers, like John Stuart Mill, urged that history for the many should be some smattering of information, and that for the educated few it becomes only of value in the university stage, where the philosophy of history may be mastered.

Despite the antipathies of the prejudiced and the better justified misgivings of the great thinkers, the educational world today everywhere accepts history as an instrument of teaching; but all are better agreed on the fact that history has a teaching value than why it has the value

or how it effects good. History, however, cannot long escape the fate of all other studies in our curriculum. History, like all else, must be standardized; history must be evaluated. Armed with questionnaires, with standards, with averages, with tests, the educational expert approaches history as he approaches every other study and propounds the dread query, fraught with direful consequences. History, do you function? Ten thousand teachers beginning the school year after summer courses in the moral, sociological and cultural values of history reply to the questionnaire affirmatively and say, "History does function." Nine thousand, nine hundred and ninety-nine ending their year in school reply sadly, "History does not function."

Besides the questionnaire, we must have the standard test. For example, we may be told here is a series of questions which have been tried on 100,000 children, on ten prisons, on three insane asylums, on all the surviving members of the Jukes family, on several college presidents, on Thomas Edison, Louis Terman, Robert Yerkes and Simon-Binet. This standardized test, averaged by experiments upon morons, infra-morons and supra-morons, is guaranteed to damage sadly any historical I. Q. in the land.

Every educator does and must sympathize with those who insist upon establishing the value of any instrument of education by demanding functioning and results. The solid principle of scholastic philosophy is *operatio est perfectio esse,* which may be translated: if a thing functions, it

is perfect. Even the flivver must submit to the test of functioning. However, not every educator will agree that voting by a limited questionnaire or testing by a contemporary average is the best way of establishing the fact that a school subject functions. Counting heads may be a satisfactory working method for determining what is to be done, in certain circumstances, but no lover of democracy will claim that a majority determines anything else except a majority, or that an average test proves anything more than that the one tested is above, below or equal to the average of those upon whom the test has been tried. Can a unanimous vote that Columbus did not discover America in 1492 or that parents in 1927 have not the right to educate their children, alter the fact in either case? What does the fact that no one in America but a moron fails to read a newspaper or to tell the time, prove as a test, when applied to a place where there are no newspapers or time-pieces? If you insist on counting heads and formulating averages in the shape of tests, then history proudly steps in and bids us count the heads of all time, bids us to strike an average, standardized from the centuries of civilization, not voted upon or averaged from a few individuals in the United States of America in the year 1900.

The teaching value of history is determined indeed by results, but limited votes or restricted averages can never adequately measure results. Scholastic philosophers have told us *operatio est perfectio esse* and they have also told us that

operatio sequitur esse. If perfection is measured by functioning, functioning in turn depends upon nature. Education is not indeed an automatic process; it is not something which works while you sleep. Education begins in self-exertion and is perfected in self-expression. Modern educators do right in demanding *a posteriori* evidence for educational efficiency, but they do wrong in rejecting entirely all *a priori* evidence. An analysis of the nature will not determine future effects, but will surely establish the present possibility and capacity for future effects. Analysis of soap will clearly demonstrate that soap can function as a dirt-chaser, but to prove that soap has adequately functioned, mother must subject "Johnny" to the standardized back-of-the-ears test.

We may now with more confidence against ultra-modernism and ultra-democracy appeal to history and civilization to establish the teaching value of history without a referendum to the voters of America or without applying a measure which has been standardized by being found applicable to a few here and there or even to a wide cross-section of our great country. We may also confidently assert the capacity of history to teach, if we analyze and determine its nature and the nature of the being it is destined to educate.

The potential value of history for the classroom may, therefore, be established by a study and analysis of its nature, and even though results must be the ultimate and adequate test of the actual value of this educational instrument, yet a consideration of the methods of the teacher and

of the obstacles to his effectiveness may go far towards giving the actual value of history as a teaching instrument. First, let us divide the students of history into two classes: those below the college grade, and those in or above the college. This division corresponds partly to the traditional separation of education into school and university as found in the German gymnasia, the French lycées and the English schools like Eton, Rugby and Harrow. It is the division found in the System of the Jesuits with its lower schools going up to and including our college sophomores, and its upper schools which comprise the last years of college and the post-graduate and professional schools. It would take too much of our time to justify this division, but its traditional and almost cosmopolitan application make any justification almost unnecessary.

What, then, can we learn of the teaching value of history in the lower schools by a study of its nature, from its methods, and from the obstacles to its full realization?

What is there, you will say, in the nature of history to determine its teaching value? Is not history simply facts of the past, actions of mankind, actions affecting mankind? Nothing indeed could be simpler in statement than the nature of history, but even in that simplicity there are many things the teacher must look to.

History has to do with concrete facts, with words and acts of men and women like ourselves. The writer of history must select some facts and discard others; he must give more space and

prominence to certain selected facts while he condenses and subordinates other facts. Supposing the historian to have nothing but undisputed truth to deal with, he may by suppression or emphasis suggest what is not true. The first pictures impressed upon the imagination of childhood are vivid and lasting. Without subscribing to all that Freud and the psycho-analysts say, there can be no doubt of the fact, which everyone's experience will confirm, that first impressions influence the mind long and profoundly. Père Eymieu in France and Father Boyd Barrett in Ireland have shown what the image in the brain can do. Father Hubert Gruender, of St. Louis University, has explained the working of the Ouija Board by passive and unconscious obedience to cerebral images. As many diseases are imaginary, so it is not hard to believe that we can imagine a cure where we imagine a disease. To that extent we are all followers of Mrs. Eddy and Dr. Coué. The tremendous significance of images will therefore give pause to writers of history when they select and express their facts for the lower schools of our educational program.

Besides the selection of facts and their prominence there is the language of the historian to be considered. The Jesuit system of studies has been severely criticized by Compayré and others for not admitting or for minimizing history in its lower schools. That the Jesuits have not neglected history is evident from their works. No more marvellous achievement for history has ever been recorded than the *Acta Sanctorum* of the

Belgian Jesuits, who are better known as the Bollandists. Princeton University has given us Father Delayhaye's *History of the Bollandists.* Three hundred years of devotion to history does not show any disregard of that means of education. The *Ratio Studiorum,* the well known Plan of Studies of the Jesuits, as every other system of its time did then and should, I believe, now teach its pupils first how to write and speak, making self-expression the test of an educated mind. Besides, in teaching the art of composition, earlier educators were wiser than those of today. They taught the art of writing historical narrative; they read historians who were models of style as well as of history, Xenophon and Cæsar, Herodotus and Livy, Thucydides and Tacitus, Plutarch and Nepos. Any student who pursued the classical course of former times went out into life well equipped with history of the most significant periods of mankind. Homer and Virgil were forerunners of Wells, but they were more honest and frankly called their presentation of the past fiction, not historical fact. Demosthenes and Cicero gave early pictures of the struggles between imperialism and nationality, between aristocracy and democracy. This classical literature was not history or, rather, it was most vivid history; it was the past still surviving in the present; it meant immediate contact with the original sources in their original language.

Such is the nature and purpose of history for the lower schools, the mastery of essential facts and the acquisition of power to write. The

method to be pursued needs no lengthy explanation. Hold on to the classics which are history in history's noblest and enduring form; put into our English courses in high school and college parallel models of English historical composition; teach the art of historical composition. In the presentation of facts be interesting. In the earlier years historical novels should be encouraged, stirring biographies recommended. History for the young should not be a dull chronicle or pages of statistics, but portraits of men and women, not of soldiers alone, but of statesmen and artists and inventors and benefactors and every class of fine manhood and womanhood. The telling anecdote, the graphic portrait, the significant parallels and coincidences, the immortal phrases, the picturesque details, illustrations, museums, pageants, and even moving pictures, will be the means needed to vitalize facts and make their acquisition a joy.

The obstacles which a teacher of history is likely to meet are prejudices and propaganda. Truth and honesty in text-book and teacher will remove such obstacles, but zeal for truth does not mean making history a replica of the modern newspaper and filling it with scandals. If the unsavory facts of the past must be treated, the place for that is the college and university. Neither should all the romance be taken out of history in obedience to the modern insistence on vocation. It is enough to have a man's life, a man's professional schools, a man's technology institutes, one's elective courses, one's preprofessional studies vocationalized. If we must railroad

the baby into a vocational rut, let the train that runs upon these rigid tracks stop now and then and permit its passengers to climb out of the depressed road-bed and with the help of history and literature look around at other things and at other men and women. Do not vocationalize the kindergarten; do not narrow the horizons of history and literature.

THE PEDAGOGICAL VALUE OF HISTORY

2. *Value in the College*

THERE is a difference of opinion about the value of history in the lower schools. Some consider that only a limited amount of necessary information need be taught in the lower schools, giving more time for the acquisition of the power of speaking and writing, which will be the evidence and guarantee of a student's educated mind, of a mind functioning properly. Personally, I believe that the art of expression should be the chief concern of early education with history distinctly subordinate. When, however, we come to the later years of college, to the maturer powers of minds able to express themselves, then history becomes more important; then there is almost universal agreement upon the advantages and value of history. In all the fields which are opening to the graduating and graduated student, in the sciences and the professions, in business and in politics, in the arts, in literature, in ethics, in religion, in man's leisure as well as man's activity, the history and achievements of his fellowman convey lessons to all and inspire growing minds with the stimulus of emulation and ambition for preeminence. In the upper schools the

maturer mind is able to appreciate the philosophy of history and should be taught that philosophy. History for juniors, seniors, for graduates and professional students should be no mere chronicle of events made interesting by illustration and story. History should attain to causes and effects, should measure men and survey policies, should comprehend development, unveiling the principles of progress and searching out the origins of decay. In all that, in what is properly called the philosophy of history, will be found the supreme pedagogical value of this subject.

Does the ordinary student master the philosophy of history? We regret to state that we believe there is today despite the ever-increasing amount of time given to history, despite the larger number of students than ever before, there is, we are sorry to say, less of the educational value conveyed by the professors. History courses, I fear, are snap courses; history courses are lecture courses, and forty years in the classroom, twenty being taught, and twenty teaching, convince me absolutely that the lecture method by itself is a dismal failure. I hope I am wrong in this; but I frankly state what I believe. Even in the sacred halls of divinity, unless the quiz and repetition follow, unless the shadow of examination chill with its fear, passive listeners catch but a few crumbs from the bewildering courses before them, digest but a small fraction of what they have caught, remember but a trace of what they have digested, and rush for a book or a stenographic résumé, when they are asked to

tell what they know. If lectures are a failure in professional schools, where a serious life-purpose is an incentive for attention and absorption, what a fizzle they are in the elective courses of undergraduates, who have no definite life-purpose!

The philosophy of history has great difficulty in reaching its destination, the human mind, when it travels by the lecture route, but that is the least of the difficulties the philosophy of history experiences today. There is an imminent danger of the philosophy of history ceasing to exist, because philosophy itself has ceased to exist. Philosophy, the science of ultimate causes, cannot exist without metaphysics. The senses cannot apprehend causality; they perceive succession only. How then can the historian go to the cause and to the causes of the cause, to the ultimate principles, to the philosophy of human events, if he does not know, if he despises metaphysics? Mr. James Harvey Robinson, formerly professor of history in Columbia University, writes a book called *Mind in the Making*. He ridicules metaphysics, exalts scepticism, quotes as typical of metaphysical reasoning an argument whose fallacy has been the stock-in-trade of logic classes for nearly ten centuries. Professor Robinson, the historian, starts off to teach us how to make up our minds from history and ends up by saying that the only lesson to be learned from history is not to follow history. What does Professor Robinson follow? He follows the modern substitute for history, imagination.

Herbert Spencer could think of and define crea-

tion, but because he could not imagine it, not being able, as no one of us is able, to imagine the nothing which precedes creation, Herbert Spencer therefore rejects creation. Professor Robinson imagines the way a single ape might accidentally have reasoned and then imagines how it might have taught others and then imagines how that acquired habit was transmitted to its descendants. A recent writer, the English biologist, Mr. Cunningham, imagines that the wonderful glands and their products, the *hormones,* transmit acquired characters from body-cells to germ-cells. The glands are the latest answer to all the world's riddles. Mr. Mencken invokes them to account for artistic excellence. Mr. Cunningham calls them in to save evolution. Professor Vernon Kellogg, reviewing Mr. Cunningham's book and sadly cutting out the glands, says very frankly: "We evolutionists need the inheritance of acquired characters more than ever now that natural selection as a species-forming agent is pretty well discredited." In other words, save your theory at any cost. Evolutionists do need that point and much else, but scientists first, last and always need facts.

That frank statement of Professor Kellogg leads us to another foe of the philosophy of history. If imagination destroys philosophy, preconceived theories and fixed opinions distort the philosophy of history and make even true history impossible.

Take the Middle Ages. The Protestant revolution simply removed them from existence and

submerged them in darkness. The Dark Ages at first reached from Luther back to some indefinite period in the first centuries, while the Christians lived in the catacombs. Look up in earlier editions of the *Encyclopedia Britannica* any topic. You will find the subject traced from Homer up to the Neo-platonists and then by a magnificent leap over intervening ages, you will see the history resumed at Descartes or a little earlier. It has taken many years of fearless historians to bridge that gap, but it is being done. The Dark Ages have shrunk until they have almost disappeared, and medieval, ceasing to be a term of reproach, is now a badge of honor. Dante has just been acclaimed by the world. Princeton has issued a work on civilization and philosophy in the Middle Ages. Two things that were thought not to exist at that time. Harvard also has issued a volume entitled, *Medieval Philosophy, Illustrated from the System of Thomas Aquinas.* These volumes are products of that clear and interesting Belgian professor, Maurice De Wulf. These are eloquent testimonies that medievalism is ceasing to be considered synonymous with darkness.

It was a man of a name somewhat similar to Dr. Maurice De Wulf, the famous German, Frederick August Wolf, who furnishes another example of the blighting influence of a theory. For more than a century his absurd theory about the multiplicity of Homer has addled literary criticism and prevented historical research. Mommsen cried out against any prepossessions

in the historian, yet he with imperialistic bias continued the dynastic prejudices of Drumann against the republicanism of Cicero in favor of the imperialism of Cæsar. It required a French republican, Boissier, to restore the balance of truth.

Imagination and preconceived theory, these two foes of history, are well illustrated in Wells' famous *Outline of History.* A novelist imagines a historical romance; a theorist subordinates the universe to his theory. At any rate, this writer removes some of the poison from the wells by honestly confessing in the *Yale Review* that he is giving an evolutionary interpretation to the facts. He originates the new *ism,* Wellsism.

Such honest labeling of books might help very much. Draper's *Intellectual Development of Europe* could be labeled an anti-Christian interpretation derived from the French Encyclopedists. Herbert Spencer could be called the Monistic Interpreter of the Past. Then we could have the Economic, the Freudian, the Communistic, the Owen Wister, and the ancient grudge, and a host of other interpretations. But for teachers and for the teaching value there is one and only one interpretation of history and that is the true interpretation of history. Mendel went into his garden and by ten years of experiment established a fact which has overthrown Darwin's theory. Fabre by years of patient investigation of instinct, completes the overthrow, although a recent scientific writer, more tenacious of theory than responsive to facts, prefers the imagination of a poet, Remy de Gourment, to the

prudent reticence of a life-long observer. The over-shadowing theory of Frederick Aug. Wolf has been undermined by the spade of Schliemann, who was the discoverer of new historic worlds and who reestablished the validity of historic traditions. Schliemann represents the teaching value of history for the young. It was a picture of burning Troy branded upon his youthful memory which haunted him all his life and finally drove him into the excavations that have revolutionized the early history of the Mediterranean litoral.

The pedagogical value of history can be put in one word, it is truth, truth clad in novelty, beauty and poetry for the lower schools and truth robed in the decorous vesture of philosophy for the upper schools.

DRAPER'S PREJUDICED HISTORICAL ESSAY

HISTORY today makes especial profession of searching out the whole truth, freely, fearlessly, without favor, without bias. Historians display warm indignation at anyone approaching a historical question with preconceived notions. Some within our own experience have declared that a Catholic is not a free historical agent because he accepts dogma. The question which this attitude of historians opens up is an interesting one, but too wide for discussion in a brief chapter. Without doubt, the attitude of writers towards the past has vastly improved. They are becoming less prejudiced and more disinterested. They are not blindly accepting inherited ideas, but bravely facing the truth. By invitation and encouragement of the Popes the great historians of the Church have had sadly to admit that priest and people have often been unworthy of the Catholicity they professed but failed to practice. Yet, on the other hand, the renewed study of history at its sources has resulted in a vast deal of good to the Church and her followers. The Reformation prejudices and evolutionary hypotheses are not allowed to misinterpret or misstate the facts. The obvious retort to the accusation

made above against Catholics was that Protestant and evolutionary theorists were not free historical agents because they accepted theory.

Unhappily, this improved condition in history has not always found its way into text-books. Compilers of text-books cannot go to sources because their works cover too much ground. They must resort to secondary authorities. One common resource for such writers is Draper's *History of the Intellectual Development of Europe*. The book is not history at all. It is a brilliant and, unfortunately, fascinating historical essay, but it does not deserve the name of history and though containing much truth, is utterly unreliable. It offends against the scientific objectivity of history by starting out to prove a preconceived theory. The author makes no secret of the fact. What historian today would venture to say in his preface as Draper does, that it was "the special object" of his work to demonstrate certain theories which he had already formulated? Yet Draper does this and proclaims proudly that it is the only scientific method.

Draper is as defective in his historical methods as he is wrong in historical principles. His whole work of more than six hundred pages contains not one reference, and though he quotes, he often does not tell whom he is quoting. In some cases, too, he quotes in such a way that it is evident that he has not seen the original. There is abundant intrinsic evidence to show that Draper compiled his work from secondary sources almost entirely. In all this Draper himself may not be

much to blame. He knew no better and had at hand no means of arriving at the truth. What, however, shall we say of our modern school manuals which so confidently give references to Draper and quote him as though he were an authority in matters of history? An instance of this use of Draper which has come to our notice is the *History of Classical Philology,* by Harry Thurston Peck, Ph.D., LL.D.[1] The unfortunate Professor Peck did not seem to know that history today has retired Draper from circulation. *The International Encyclopedia* declares that his theories are largely discredited and his facts superseded. To give a specimen of Draper's history we shall take a passage from his treatment of Pope Gregory the Great. Draper is here perhaps at his worst, but he is striking if not true, and this particular part is a favorite one with compilers. Professor Peck is the latest victim.

Draper says (*Hist. Intell. Devlop. Europe,* p. 264), "Participating in the ecclesiastical hatred of human learning, and insisting on the maxim that 'ignorance is the mother of devotion,' he (Gregory) expelled from Rome all mathematical studies and burned the Palatine Library founded by Augustus Cæsar. It was valuable for the many rare manuscripts it contained. He forbade the study of the classics, mutilated statues and destroyed temples. He hated the very relics of classical genius; pursued with vindictive fanaticism the writings of Livy, against whom he was

[1] History of Classical Philology. Harry Thurston Peck, Ph.D., LL.D.: Macmillan Co.: New York, 1911.

especially excited. Well has it been said that he was as inveterate an enemy against learning as ever lived, that 'no lucid ray ever beamed on his superstitious soul.' He boasted that his own works were written without the rules of grammar and censured the crime of a priest who had taught that subject." Where Draper got all this he does not tell us. It is certain he never went to the original sources, and it is doubtful whether he ever read a line of Gregory's writings.

It may be certainly affirmed at the outset that Gregory was a learned man. We have the contemporary testimony of Gregory of Tours that he received the best education of his times. His family was rich and noble. He entered into public life at first and was elected to the office of praetor of Rome. Afterwards he entered a monastery, giving his money to the poor and to the erection of seven monasteries. His voluminous writings, which include over eight hundred letters, dispose of the absurd statement that they were written without regard to the rules of grammar. For more details of his life the Catholic Encyclopedia may be consulted. The article on Gregory is full and satisfactory, but it does not mention these grotesque accusation of Draper, which all except our school historians and writers of manuals have long ago discarded.

Now for Draper: Gregory "insisted on the maxim, 'ignorance is the mother of devotion.'" A diligent search of several indexes of Gregory's works fails to disclose any such maxim. On the contrary, he does say, *"Doctrina est nutrix vir-*

tutum," "learning is the nurse of virtues." If there is any authority for Draper's alleged maxim, it will be found, undoubtedly, that the context will explain its meaning in a satisfactory sense.

"He expelled from Rome mathematical studies." This is a ludicrous blunder. The original statement is found in John of Salisbury (*Polycraticus De Nugis Curialium* II, 26), and the one who first quoted this fact against Gregory took great care not to quote the rest of the sentence from which the words were taken. *Mathematici,* whom Draper thinks to be the same as our mathematicians, were in reality astrologers and fortune-tellers. Gregory was doing what the police in our large cities are often forced to do today.

"He burnt the Palatine Library." That statement had also its origin in John of Salisbury (1115-1180) and it is not found in any of the several earlier lives of Pope Gregory (540-604). It is to be noted that John of Salisbury gives this remark as a report. He says, *"fertur," "ut traditur."* Again in the same context he gives another account of the burning of the same library. Finally it would seem, too, that he referred only to the burning of the books on fortune-telling. "As is handed down by our ancestors he gave to the flames the writings of the Palatine in which principally were those that pretended to reveal to men the mind of heavenly beings and the oracles of the gods." Professor Peck [1] quotes the fact as only traditionally reported, but he should not

[1] P. 198.

have mentioned it at all. Professor Peck's account of the burning of the library of Serapeion in Alexandria is equally fictitious. The temple of Serapis was destroyed by the order of Theodosius, by the soldiers of Theodosius, and the Church had nothing to do with it. The pagan Eunapius describes the scene and says nothing of books or libraries. All good historians now give up the story. Draper and his copiers still retain it.

"The mutilation of statues and the destruction of temples" may be passed over as not touching the question at issue and as a rhetorical flourish. It is equally groundless. Gregory even urged the preservation of the pagan temples in England. It was the custom rather to make Christian churches of pagan temples.

"He hated the very relics of classical genius, pursued with vindictive fanaticism the writings of Livy." The source of this statement is Blessed John Dominic (1356-1420) whose words are quoted by St. Antoninus (1389-1459) in his theological works. The statement first appears eight hundred years after Gregory, is not mentioned in any one of the earlier lives, is inconsistent with his character as a patriotic Roman, a Benedictine monk and a contemporary of Cassiodorus. Prof. Peck would have done well not to have repeated his unfounded statement against Gregory. Perhaps in attacking some of the excesses of the Renaissance Bl. John Dominic may have been misled into ascribing such a deed to Gregory.

"He boasted that his works were written with-

out regard to the rules of grammar." This statement no doubt refers to the last paragraph of Gregory's letter to Leander, Bishop of Seville. The letter serves as introduction to Gregory's famous commentary on Job. Gregory says he is not seeking for the refinements of grammar. He mentions metacism, which, if the reading is correct, refers to the excessive occurrence of the letter "M." He will not avoid barbarisms, and despises the order of words and tropes. He does, indeed, say too that he despises the cases of prepositions, but the fact that he enumerates many technical terms of rhetoric, shows he is not unacquainted with the fine art of language. Gregory's purpose is to apologize for the shortcomings of style and to insist upon the preeminent importance of the matter. This is evident from the words which follow. *"Indignum vehementer existimo ut verba coelestis oraculi restringam sub regulis Donati."* "I think it quite unbecoming that I should hamper the revelations of God by the rules of the grammarian, Donatus." These are the words of which Prof. Peck says: "The favorite saying of Gregory was, that 'the oracles of God were greater than the rules of grammar.'" [1] The whole context and the acquaintance of Gregory with grammar shown by the technical terms and by the name of Donatus all go to prove that what the Pope deprecated was seeking for style where the substance was everything. Prof. Peck himself did not use and would consider it bad taste to use in his manual of history

[1] P. 198.

the charm which characterized his purely literary work. Gregory's express words show that it was a question of elegance and not of correctness, for in the same passage he says that his commentary being the child of the text should bear a resemblance to its mother. The Latin translation, as he admits, was not a model of elegance, and so his remarks ought not be of polished elegance. Too much space has been given to the discussion of this point. If Gregory disregards grammar it should have been very easy for Prof. Peck to give evidence of it. He would not criticise the style of the obscurest writer in Latin, Greek or any other language without personal investigation or reputable and verified authorities. Any tactics seem fair against the Popes.

"He censured the crime of a priest who had taught the subject." This statement refers to a letter written, not to a priest, but to a bishop in Gaul, Desiderius by name. The letter does seem at first sight to justify some of the opinions of Draper. But a number of considerations prove it impossible to take the words as they read. Gregory himself, in his commentary on the Book of Kings, praises the study of grammar as a necessary and valuable aid to learning the Scriptures. Many priests of the time and even bishops taught schools and had schools connected with their cathedrals. The Benedictine monks, of whom Gregory was one, shared largely in education. It would seem then that the mere teaching of grammar could not possibly call for the strong condemnation found in this letter of the supposed

fault of Desiderius. Gregory says he cannot speak of it "without shame," that he groaned and was sad when he heard of it because "the same lips should not join the praises of Christ with the praises of Jupiter," that it was "grievous and sinful for a bishop to sing what did not become a layman." The true interpretation of this letter, therefore, is the one stated in the Gloss on the Canon Law, according to which the bishop's fault was giving public lectures in the Church on profane poets, instead of explaining the Gospel. A note on the subject may be found in Drane's *Christian Schools and Scholars*.

Most of this information in answer to Draper's absurd statements can be found in the Venice edition of Gregory's works published in 1776, vol. XVI, which contains a vindication of Gregory against the attacks of a certain Casimir Oudin, a French Premonstratensian, who apostatized from the Church, and was pensioned by the Protestants. Oudin died in 1717 and his work appeared in 1722. Draper must have met with Oudin's book or with some writer who made use of it. At any rate, there it is in Draper and from him it is copied by our school historians.

The conjecture may be safely hazarded that the source of Draper's Intellectual Development of Europe was chiefly Diderot's Encyclopedia to which Oudin was a contributor.

TRUE DEMOCRACY IN SECONDARY EDUCATION [1]

THE SCHOOL OF WISDOM

Strophe I.

1. The wisdom of a scribe cometh by his time of leisure;
   And he that is less in action shall receive wisdom.
2. With what wisdom shall he be furnished that holdeth the plough,
   And that glorieth in the goad and driveth the oxen therewith?
3. And is occupied in their labors;
   And his whole talk is about the offspring of bulls.
4. *He shall give his mind to turn up furrows;*
   And his care is to give the kine fodder.

1. So every craftsman and every workmaster,
   That laboreth night and day:
2. He who maketh graven seals,
   And by his continual diligence varieth the figure.
3. *He shall give his mind to the resemblance of the picture;*
   And by his watching shall finish the work.

Anti-Strophe I.

1. So doth the smith, sitting by the anvil
   And considering the iron-work;
2. The vapor of the fire wasteth his flesh,
   And he fighteth with the heat of the furnace.

[1] See *Scribner's*, February, 1919, *The College: Today and Tomorrow*, by Dean Roe of Wisconsin University.

3. The noise of the hammer is always in his ears;
   And his eye is upon the pattern of the vessel he maketh.
4. *He setteth his mind to finish the work;*
   And his watching to polish them to perfection.

1. So doth the potter, sitting at his work,
   Turning the wheel about with his feet.
2. He fashioneth the clay with his arm
   And boweth down his strength before his feet.
3. *He shall give his mind to finish the glazing,*
   And his watching to make clean the furnace.

Alternate Strophe

1. All these trust to their hands;
   And every one is wise in his own art.
2. Without these a city is not built,
   And they shall not dwell nor walk about therein.
3. And they shall not go up into the assembly;
   Upon the judges' seat they shall not sit.
4. And the ordinance of judgment they shall not understand;
   Neither shall they declare discipline and judgment.
   And they shall not be found where parables are spoken.
5. But they shall strengthen the state of the world;
   And their prayer shall be in the work of their craft.
6. Applying their soul
   And searching the law of the Most High.

Strophe II.

1. The wise man will seek out the wisdom of the ancients;
   And will be occupied in the prophets,
2. He will keep the sayings of renowned men
   And will enter withal into the subtleties of parables,

3. He will search out the hidden meaning of proverbs,
   And will be conversant in the secrets of parables.
4. He shall serve among great men
   And appear before the governor.
5. He shall pass into strange countries;
   For he shall try good and evil among men.
6. *He will give his heart to resort early to the Lord that made him,*
   And he will pray in the sight of the Most High.
7. He will open his mouth in prayer,
   And will make supplication for his sins.

Anti-Strophe II.

1. For if it shall please the great Lord,
   He will fill him with the spirit of understanding.
2. And he will pour forth his wisdom as showers;
   And in his prayer he will confess to the Lord.
3. And he shall direct his counsel and his knowledge,
   And in his secrets shall he meditate.
4. He shall show forth the discipline he has learned,
   And shall glory in the law of the covenant of the Lord.
5. Many shall praise his wisdom, and it shall never be forgotten,
   The memory of him shall not depart, and his name shall be in request from generation to generation.
6. Nations shall declare his wisdom;
   And the Church shall show forth his praise.
7. If he continue, he shall leave a name above a thousand;
   And if he rest, it shall be to his advantage.

Ecclesiasticus: 38; 25—39; 15.

This is a plea that secondary education should be free and democratic, that a liberal education should be permitted to be true to its name. Everyone who can and will, should have such an education because the development of the mind in wisdom is a good deal like health to the body and good character to the will. The chapter does not attempt to determine what

is to be done for those who either cannot or will not devote themselves to that intense and prolonged cultivation of the mind.

In Europe the period of secondary education lasts usually for six years, and students reach the university at eighteen and sometimes earlier. In America at least two more years have been added without corresponding gain. Personally I should like to see secondary education begin at twelve and end at eighteen. The movement for Junior High Schools may result eventually in making the stage of secondary education one of six years after six years primary. Standards have advanced so rapidly that in many subjects students are now at the end of Senior High School where earlier students were at the end of college, and many American colleges are in reality universities.

I have not discussed this question or others equally important, but have confined myself to a protest against tendencies which attempt to restrict or enslave liberal education. This discussion of the meaning of a liberal education was given as an address to the graduates of Marywood College, Scranton, Pa.

The poem prefacing this chapter is strangely imbedded in the Book of Ecclesiasticus. When the Bible was divided into chapters, the divider was not aware of the existence of this poem, and he put the division of chapters 38 and 39 almost in the middle of the poem, violently separating stanzas and even verses. The first three stanzas end chapter 38; the concluding stanzas begin chapter 39. In form and in substance, the passage presents to us the highest poetry. The parallelism of verses, the echoing refrain, the antiphonal structure of the stanzas, exhibit the characteristic forms of Hebrew poetry. In spirit the poem is equally biblical. Its theme is the acquisition of wisdom, and the development has that wide outlook on man, his life and government, on God and His truth and divine sway, which we note throughout the Holy Scriptures.

Associated with these nobler and higher elements, we find in the details that crystal clearness, that objective realism which is characteristic of Greek literature. The author of Ecclesiasticus was Simon, son of Jesus, who lived two hundred years before Christ. The book was translated into Greek by his grandson about 132 years before Christ. The hymn on the acquisition of wisdom comes fittingly towards the end of a long discussion on wisdom and before the praise of God in His works and His creatures.

I call attention to this great hymn, not because of its poetic beauty, but because it presents an ideal of education, an ideal of a liberal education, of what I mean when I speak of college or secondary education. After the primary stage of education, where our children are trained in the absolute essentials of life, where they learn what is common to all people for home, for country and for God; before the university, before the technical and professional education, where students are immediately adjusted to their life work, there is a stage of education which we call secondary and college education. It is of that period of education I wish to treat. Its extent varies in different places and in different countries; its boundaries are shifting and cannot always be accurately ascertained. The name of high school or college or even that of secondary education is not a sufficient guide in many cases. As, however, in a discussion about man's soul, I may disregard differences of body and of nationality, so I am here and now to speak of the soul of second-

ary education, and I shall not speak of its external variations, but of its inner spirit, of the pursuit of wisdom, of what should be the true meaning of a liberal education in a democracy.

Liberal education originally meant the education of freemen. Slaves had not the leisure to devote to their own improvement; they had their labors to perform. Only their masters had time and opportunity for the full development of their powers. It was thus that liberal education received its name. Read the educational ideals of Ecclesiasticus and you will find the same distinction. In fact, freedom from engrossing occupations is the necessary condition for the winning of wisdom.

"The wisdom of a scribe cometh by his time of leisure;
And he that is less in action shall receive wisdom."

He that holdeth the plow, the craftsman that maketh graven seals, the smith sitting by the anvil, the potter turning the wheel, with what wisdom, asks the Preacher, shall they be furnished? Their heart is in their work and its perfection.

"All these trust to their hands;
And every one is wise in his own art.
Without these a city is not built.
They shall strengthen the state of the world;
And their prayer shall be in the work of their craft."

But, continued the Preacher,

"They shall not go up into the assembly;
Upon the judges' seat they shall not sit.

And the ordinance of judgment they shall not understand;
Neither shall they declare discipline and judgment."

The craftsman knows his craft; the craftsman is a necessity and a power in the state, but he may not be a legislator, or a judge, or a teacher, because he has not had leisure to gain wisdom; he has not received a liberal education. That is the ideal of Ecclesiasticus; what is our ideal?

Necessity governs the first and last stages of our educational system; freedom is the prerogative of the intermediate secondary stage. In the first and last stage educational attention is centered upon subjecting man either to his common environment or to his vocation in life. Secondary education, therefore, should be truly liberal. At that stage man is not the subject of education; he is the object of education. He is not developed for something else to which he is made subservient; he is developed for himself. He is the center upon which the instruments of education are focussed so that their converging rays may warm his soul to knowledge and set it aflame with wisdom.

You will see that I am giving here a wider interpretation to the term "liberal education" than it had in its first use and in its original meaning. Originally, a liberal education was the education of freemen as distinguished from slaves; it was the education of aristocracy, because only the aristocracy had the leisure to devote to secondary education and upon that basis to erect

the structure of the great professions. That aristocratic notion of secondary education still persists. In France, when many years ago in 1902, four parallel courses were introduced after primary grades, the traditional classical course was looked upon and even called aristocratic. When after twenty years experience France found that science courses made poorer scientists and modern language courses made poorer linguists and even courses in the vernacular produced graduates weaker in the French vernacular than those who followed the traditional classical course, the Minister of Public Education in France declared that everybody should receive the same liberal education, France there and then revolted against the aristocracy of secondary education and made it democratic.

With the rise of the Labor Party in England, there, too, liberal education has been demanded by the laborers with the same eagerness and with ambition for the same results as it has been formerly desired by the aristocracy of class or by the aristocracy of professions. England unites with France in making a liberal education democratic, not by changing its nature, but by enlarging its portals.

Macaulay in a speech on electoral reform gives this cause of revolutions: "A portion of the community which has been of no account, expands and becomes strong. It demands a place in the system, suited not to its former weakness, but to its present power. If this is granted, all is well. If this is refused, then comes the struggle between

the young energy of one class and the ancient privileges of another." He cites our revolution against England, the revolution against aristocracy of birth in France, against aristocracy of creed in Ireland, against aristocracy of color in Jamaica, against aristocracy of locality in English electoral reform. Our age has seen the revolution against the aristocracy of sex in politics and education. Woman has claimed a place in the system and has won it. She votes; she receives her A. B.

The Church of Christ by its religion led the way to the recognition of man's essential equality in the eyes of God, not an equality of endowments but an equality of opportunity to realize all endowments to the full. It is the teaching of Christianity that talents may be unevenly distributed, but it is also the infallible teaching of the same Divine Master that in the just apportioning of awards, all who have made their talents yield one hundredfold are entitled to the same eternal reward of happiness whether their talents were one, two or five. Christianity abolished the aristocracy of inherited talent and of nationality. When the Star of Bethlehem rose above the borders of Palestine calling the Gentiles, the aristocracy of national religion disappeared forever. St. Peter and St. Paul accepted that declaration of independence, and since then election to the highest offices in the Church has ever been as democratic as election to office is in our country. Even slaves have been chosen to be Popes in the first years of the Church.

The Declaration of Independence in America voiced the teaching of the Catholic Church and led logically to the democracy of college education. When the government was taken away from a royal family and restored to the people, the way to the presidency of the United States was theoretically laid open to any and every citizen of these States. Our rulers were no longer to be taken from one class or one family. The aristocracy of nobility and the aristocracy of royalty were abolished, and everyone was entitled to equip himself mentally with all the necessary qualifications for any office in the state. Liberal education ceased to be the prerogative of a class and became the privilege of the people. Liberal education became democratic in theory. What our fathers of the Republic subscribed to in the Declaration may be applied to the inalienable rights of education as well as to the inalienable rights of government. "We hold," they said, speaking of rights, not of capacities, "that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty and the pursuit of happiness."

Everyone, unless a higher right interferes, has for his body the right of life, liberty and the pursuit of happiness, and for the body, life, liberty and the pursuit of happiness, all mean health. Everyone has for the voluntary part of the soul, for the will, the right to life, liberty and the pursuit of happiness, and the life of the will, and the true liberty and happiness of the will, all are

found in a good character or in the sum-total of the soul's virtues. In like manner, everyone has for the intellectual part of the soul the right to life, liberty and the pursuit of happiness, and the life, the liberty, the happiness of the mind, all are found in the habits of the mind, in the mastery of principles, in what Ecclesiasticus calls wisdom. A college education is, therefore, in itself as democratic as is character or health, and true democracy requires that in our country and in every country the portals to the temple of wisdom should be opened wide and not restricted in entrance by an aristocracy whatsoever, whether of birth, or class, or nationality, or sex, or wealth, or of anything else. Democracy cannot possibly equalize initial capabilities. Talents are not evenly distributed. Democracy cannot equalize personal and family duties. Democracy can, however, equalize opportunities. I do not say that democracy must create equal opportunities, but it should do nothing to deny or limit opportunities. We have schools for soldiers and sailors because the very existence of the state demands trained defenders. We have no special schools for legislators, for judges, for executive officials, for presidents. Peace has not the pressing exigencies of war. You may experiment at elections; but experimentation with the enemy at the door would be fatal. If, therefore, democracy need not have a West Point for legislators, judges and officials, one thing at least it should not do: it should not limit the world's supply of wisdom; it should not deny opportunities wherever one of its subjects

has a mind that can gain wisdom and has the leisure to attain to the mastery of wisdom. That is a true and divine democracy which says to everyone: "If you have one, or two or five talents in body, in will, in mind, I shall not be to you a hard master so that you will be afraid and go apart to hide your talent. No, my good and faithful servant, you have my leave, my encouragement, my active aid to invest what you have and gain health and virtue and wisdom a hundred-fold over and above your initial capacity."

It has been America's good fortune that it recognized early the democracy of secondary education. For a century and a half it was America's belief and practice that all its citizens had a right to wisdom, had a right, if qualified, to go up into the assembly, to sit upon the seat of the judges, and to declare judgment. Note, however, the sad fact that today our precious inheritance, our intellectual freedom, our true democracy of wisdom is threatened, and sad, to say, is menaced with doom by those who think and proclaim that they are working for the betterment of education. Liberal education is threatened with enslavement or is about to be made the peculiar possession of some other aristocracy. Eternal vigilance is the price of liberty, and it will be futile to write a declaration of independence on paper and then force upon our secondary education a tyrannous subjection antagonistic to true wisdom.

I pass over the attempts that have been made and are being made to falsify democracy. Democ-

racy, according to some, is not an equal opportunity to realize inalienable rights, which belong to man before he is a citizen of any state, rights which the state was formed by the citizens to uphold and perpetuate, but democracy, say these misguided people, is enforced uniformity. They absurdly suppose that a majority may determine and settle everything, that we must all be brought up eating the same federalized food and clothed in the same federalized suits and marching with the same federalized step, and, worst of all, even our minds are to be hooded and uniformed that we may think the same federalized thoughts. There is only one place where such uniformity is found and that is in a prison, and the prison these fanatics would make of America is the gloomiest, the most terrifying of all prisons, where stripes and chains and lock-step are imposed, not upon bodies, but upon souls. Democracy is equal opportunity for all to develop body, will and mind. Tear up the Declaration of Independence if uniformity of body and soul, if communism can masquerade as democracy, if the vote of any majority can destroy our inalienable rights to life, liberty and the pursuit of happiness. That is mob autocracy, the worst of autocracies.

The people who would vote private schools out of existence may imagine they are friends of public education; they are in reality its foes, because they are striking at the heart of education, at its freedom and right to wisdom. Progress, reform, improvement have always begun and must always begin in the individual. The mob, the majority,

even the people, have never originated anything except a reversal to barbarism. The individual aims at the ideal; the crowd falls below the average and is the victim of blind violence. Whether it acts with ballots or with bullets, with rope or referendum, that is not a just people but a mob lynching, when the God-given rights guaranteed by the American Constitution are murdered at the polls.

Far removed in spirit from that un-American mob are those who, led away by a mistaken idea of what is practical, would destroy secondary education by imposing trades upon American children while they are still in the grade schools. A bulletin was issued in 1918 by the Bureau of Education in Washington; it embodied the report of a Commission appointed by the National Educational Association to consider the reorganization of secondary education. This report, bearing the names of well-known educators, having, it would seem, the approval of the National Educational Association and of the National Bureau, was entitled the "Cardinal Principles of Secondary Education." This report practically ignored secondary education as it has been understood up to our time and advocated a policy which would destroy true democracy of secondary education. Wisdom, Ecclesiasticus tells us, cannot be acquired in life by farmer or engraver or smith or potter because their engrossing occupations use up all the energies of body and mind. How would this Commission help on the acquisition of wisdom? Why, by starting our children ploughing and blacksmith-

ing and pottering at ten or twelve years of age. Instead of liberalizing education this Commission enslaves it. Instead of opening and keeping open the door of opportunity as long as possible, which is the true democracy of education, they would close the door as soon as possible. Who then would go up into the assembly or dispense judgment?

Do not imagine for a moment that in advocating democracy of secondary education that I am not a warm friend of primary education. I advocate justice and true democracy for all education, and in direct opposition to the "Cardinal Principles of Secondary Education" I would urge the retention and development of liberal education in the high school and college because that would bring about a better education in the primary. Only about ten in a hundred of our children enter the high school. Yet far more money relatively is spent upon that favored few, some of them well to do, than upon the children of the poor. The high school is the pampered child of modern education. The primary grades have not schools enough, have not teachers enough, and the teachers are not paid enough. In some places students enter upon a high school course and they are shifted from classical to commercial, to scientific, to trade schools, each school more expensive than the preceding, and not infrequently the weaker the student, whether the weakness come from incapacity or from wilfulness, the more is paid for his education. Educate the ninety fully, before one cent is spent upon the ten who in most cases

are well able financially to educate themselves. One of the best ways of doing this is to hold fast to the true, the enduring principles of secondary education, rejecting early specialization, rejecting trades, rejecting a smattering in a multiplicity of subjects, and holding fast to literature, to pure science, to mathematics, to history, to the knowledge and fine use of English and to other instruments, which time has shown will produce the well-being of the mind without waste of money and with solid and precious results in true wisdom.

Presumed friends of secondary education reach in from life and strive to wrest secondary education to some definite, restricted trade. They would substitute the aristocracy of trade for the democracy of wisdom. Other adversaries of true democracy of education are the professions. Medicine, law, engineering, business attack the freedom of secondary education and would render it slave to some particular profession. The aristocracy of professions must not be allowed to destroy liberal education. Our high schools cannot, if they would, train for the multiplicity of trades and avocations in the world, and they should not, even if they could, attempt the task. Neither should specialism of professions dominate the secondary schools. Our students cannot determine their professions so early, and even if they could, it is better for every profession that their subjects be developed mentally before they are devoted to one particular life-work. The simple reason is that all professions cannot be taught, and therefore no single profession should be per-

mitted to monopolize our schools. Another and a better reason for excluding pre-professional courses is that by this division of energies true education is hampered and thwarted.

What, now, is the wisdom of which we have said so much, what is that state of the mind which corresponds to health in the body and to virtue of good character in the will? Wisdom is not mere knowledge. "Knowledge comes, but wisdom lingers." So Tennyson has written, and he has written truly. Wisdom is ripened knowledge. You can roast an apple, it has been well said, in minutes, but you cannot ripen an apple except in months. Education is a matter of habits. The body is healthy when every part of it habitually functions properly; the will has a virtuous character when it functions constantly in good deeds. Habitual action is the evidence and test of education. The mind, therefore, is educated when it functions properly. Knowledge or information is the material of which wisdom is made; it is the food of the mind. But food must be digested, must be transformed into the very substance of the body before it can produce health. Facts, therefore, must not be passively accepted; they must be vividly apprehended; they must produce judgments of assertion or denial; they must lead to conclusions; they must be brilliantly imagined; they must find fitting words for their embodiment; they must crystallize into systems of truth. Even general facts must be woven into the texture of the mind in adequate expression, before we can say the mind possesses wisdom.

What, then, of the particular facts of any specific trade or profession? Such facts, such information, however necessary in the trade or profession, if made the instruments of education will result in specific habits. Is it better for all trades to have a coal-mine at hand, or some particular engine? Whole nations are concerned about Niagara Falls and Muscle Shoals, and they ought to be. So should the whole nation be concerned that secondary education be kept as a reservoir of power for all the people. General habits are more useful than particular habits, and wisdom is a general habit; it is the assemblage of all habits of the mind. Wisdom is the mind's health and the mind's character.

Dancers insure their toes; prize-fighters insure their fists; musicians their hands; singers insure their vocal cords. "Without these a city is not built." These particular habits follow upon the general habit. Democracy should see to it that as these particular habits are insured by their owners against loss, so also the general habit of brains, which is the foundation of all habits, and which is developed by secondary education, be insured against loss, whether that loss come from open or hidden foes of genuine secondary education.

The teaching of Ecclesiasticus which has been made the text of this chapter, sets forth not only the necessary condition for acquiring wisdom, it also tells us the means for acquiring wisdom. The Preacher is not discussing school alone but all of

life, and among the means of wisdom he mentions experience of life and travel.

> "He shall serve among great men,
> And appear before the governor;
> He shall pass into strange countries;
> For he shall try good and evil among men."

There is, however, one means mentioned which is in place both in school and out of it.

"The wise man will seek out the wisdom of the ancients."

In that one line we have embodied the most sensible and the best of all means for the art of teaching. You do not look for grapes upon thorns nor for figs upon thistles. Where, then, will you harvest wisdom except from wisdom? The folly of trying to win wisdom from special trades and professions has been shown from the fact that the habits they form are particular and specific, not general, flexible, versatile habits for all of life. The folly of such training, too, is evident from the fact that the instruments and practices of every trade and profession soon grow antiquated and pass away. One of the reasons for the high price of trade courses and so-called scientific courses is the feverish attempt to keep up with improved machinery and improved methods. It cannot be done. These courses are as futile as they are expensive and will ever be so. In six years, in four years, in one year there are revolutions in every business, every trade and every science. One discovery will make junk of everything in your high-priced trade-schools.

What, and what only, survives your school days: the wisdom of the ancients. The machinery, the methods of all trades and of all business, all the experimental sciences of chemistry, physics, biology, that I knew as a student, are antiquated. Only in as far as they produced in me general habits have they survived. Not so, however, is it with the wisdom of the ancients, that survives, that lives, that shall always live within me. Religion and art and literature and pure science and the great facts of history and the power to express myself with tongue or pen, and finally philosophy, in a word, the wisdom of the ancients, they are with me yet. If I have aught of wisdom, it is from the wisdom of the ancients that I have drawn it. That will be the source of wisdom in time to come. Everything else may change and pass away, but the wisdom of the ancients will give wisdom, and nothing else will so assuredly do it.

The road to wisdom for secondary education is clearly mapped out. It does not deviate into the byways of information, least of all today when information on any subject can be promptly found, because information is only the raw material of wisdom and if heaped upon the mind will crush the mind to earth and not speed it along the broad path to wisdom. The highway to wisdom lies through the exercise of man's faculties, through the foundation of habits in each of those faculties, and in adequate expression, which is the fruit and the test of education. For centuries in all nations, the minds of men have travelled to

wisdom by means of the old and tried but ever new way of literature, art, pure science, mathematics, history, philosophy. Sometimes, as in France, educators have gone investigating towards diverging and deceitful prospects, but have been sadly disillusioned and have found themselves in a blind road or on the brink of a precipice, and they have hastily retraced their footsteps to the wisdom of the ancients.

What a glory, what a triumph for our country that the highway to wisdom may be travelled by everyone! No unjust majority, no mistaken notion that uniformity is democracy, no alienation of everyone's free right by public or by private means to improve the mind, no dazzling or alluring will-o'-the-wisps in the shape of trades or business or professions, none of these specters should be permitted to frighten the students of America from the highway to wisdom. As far as duties permit, as far as capacities can reach, as far as talents may take, let each and everyone of the people fare forth upon that great quest for wisdom. That is the ideal of democracy. Then

"If it shall please the great Lord
He will fill all with the spirit of understanding.
And they shall show forth the discipline they have learned
And shall glory in the law of the covenant of the Lord.
Nations shall declare their wisdom;
And the Church shall show forth their praises."

STANDARDIZING EDUCATION

1. *Recent Standards*

THE question of the hour is: Are you standardized? Eugenics would standardize the race; socialism would standardize the state; unionism has standardized a day of labor; prohibition standardizes our drinks; child welfare standardizes the baby; Simon-Binet tests standardize the intellect of everyone from age of three to the grave. A modern physician is alleged to have standardized old age as beginning at forty, and now the League of Nations will no doubt standardize the world.

What are we to think of all this standardization? Some of it is fact; some of it fashion and fad; some of it fallacy. In the manufacturing world standardizing has revolutionized production. From the shoe to the ship; from Waterman to Ford, the standard parts and standard patterns have simplified production; have multiplied products and amplified profits. What works so well with the outside of the head might well be transferred to the inside, so reason the theorists, and materialists see no difficulty in applying to brains what has been found to work with boots. Education wishes to produce in quantities. Why not then consider analogy to be likeness or even iden-

tity? The pupils will be the raw material; the schools will be machines in standardized buildings with standardized teachers as parts of the machinery, and quantity production, properly labeled, will result under the benign control of a Washington Ford.

The revolution brought about in manufacture by standardizing accounts partly for the fashion or fad of extending the principle beyond its proper sphere. The fallacy of supposing an analogy or metaphor to be a complete likeness and specific correspondence accounts partly for the transfer of standardizing from the material to the spiritual, from machines to free souls.

Besides this fundamental fallacy which lurks beneath much of the agitation for standardizing, there is too the glamor and comfort of glittering generalities which from time to time are in fashion. Review briefly the history of modern education and recall the blaring of trumpets and the tramping of battalions which have gone on under the rallying cries of efficiency, system, progressive, preparedness, socializing, electivism, vocationalism, reconstruction, and ten thousand other terms. Men dearly love to characterize simple things by dignified appellations and are careful not to repel possible adherents by attaching too definite meanings to high-sounding terms. Standardizing is an especially comfortable and blessed word, because of the easy way in which what is standardized may be thought to reach a high standard. Only the simple can be deceived by so obvious a play on words, but we have the authority of the great-

est showman on earth that the American people like to be fooled.

Another fallacy that lurks under the term, standardization, might be noted. It is fondly believed that standardizing confers on the school or class which is standardized a certain perfection which goes on working automatically ever afterwards. This is the perpetual-motion fallacy applied to human associations. No system however perfect; no standardization however elaborate, will go on functioning without a personality. This assertion is true even of machinery, and much more it is true of thinking, feeling, free-willing man.

Yet despite these perils and others connected with standardization, the term and its realty represent some facts and good advantages.

First of all, standardizing tends to give definite meaning to many terms. What is meant by a college, a university, a high school? Countries, states, individuals differ in their acceptance of the term. It is a gain for clear thinking and for accurate reasoning to have some commonly accepted signification for constantly used terms. Standardizing defines.

Again standardizing, though it does not always put the thing standardized in the highest class, does usually give it some class by establishing minimum requirements. A standard protects a school against inferior competitors; keeps out, if the standard is enforced, unsuitable material; assures students and the world that the product of a system has, at least in theory, a definite value.

But what does it mean to be standardized? Today standardizing seems to mean a definition derived from averages. You are standardized if you come up to the average of your class. Take a recent instance of standardizing issued by the Federal Government, *The Resources and Standards of Colleges of Arts and Sciences, Bulletin 1918, No. 30, Bureau of Education.* The investigation described in this report was carried on with a right appreciation of Catholic conditions, and it presents its conclusions fully and liberally without the dogmatizing of unjust discrimination. The Bureau of Education wisely did not continue the classification which was begun in 1911. The grave injustice of that classification, which left out of account entirely the free services of our Catholic teachers, is not committed in this report. The value of energetic Catholic protest and of clear explanation of what Catholic colleges really are, is well attested by these sensible words: "Due allowance is made in estimating the standing of institutions under the following categories for denominational institutions whose budgets contemplate no salaries for instructors and whose discipline precludes separation of the College from the preparatory school." (P. 15.)

The Report disclaims any attempt at formal definition, yet, however fair in its handling of facts, it does wish to establish minimum requirements; it does outline "what may be regarded as the essential scope of a successful collegiate enterprise." The study of this committee's pro-

cedure and result will give us an idea of what is meant by standardizing. This Report has already been repeatedly quoted as defining a standard College and it will continue to be so quoted.

The committee prepared a questionary, calling for information under thirteen heads, chosen, it would seem, arbitrarily and not logically classified. Four points concern the student directly: admission requirements (9, 10), size of "quiz" sections (12), work required (8); three points concern the teachers: their number (4), their qualifications, one-fourth Ph.D., three-fourths A.M., (6), their hours of teaching (7); the curriculum has one point (3), and the separation of college and preparatory is urged, with limitation, in the fifth point. There are four points concerned with finances; income (1), tuition (2), salaries (11), equipment (13).

Out of 500 colleges 252 replied to the questionary and on the basis of their replies minimum requirements are postulated.

If this instance of standardizing may be taken as typical, what are we to say of the principles upon which it is based? In the selection of the points, the report seems to follow no definite principle. It is almost entirely arbitrary and empirical. In the present condition of philosophy or lack of philosophy outside of Catholic schools, the absence of any definite theory of education is lamentably evident. Without a philosophy of education, there are no sure principles for standardizing education. Had the report given merely a classification of facts, no criticism could be of-

fered except that the value of the facts is much impaired because each institution filled out its own questionary and without implying any intention in the colleges to deceive, the wide latitude allowed them in the interpretation of terms renders conclusions doubtful.

Professors Bushnell and Place of Syracuse University attempted to find out the value of a College A.B., in terms of Latin and Greek requirements. In the use of such a simple term as year there was a wide difference of practice. The investigators fixed as a standard year three recitations per week throughout a college year. Even here there is room for misunderstanding. What is a collegiate year? How long is a recitation period? Again, the conclusions were based on catalog prescriptions, which do not always correspond with realities. But, without considering these necessary limitations, it is remarkable what a wide range of requirements was noted. Catholic colleges in the East, according to that definition, called for eleven years of Latin and Greek whereas by far the larger number of Eastern Colleges demand six years or less of both languages.

The arbitrary nature of the questions and the inaccuracy of the replies constitute a serious criticism of this method of standardizing. But a more reprehensible feature seems to be the imposing upon all the average standard. This is a serious defect in modern methods of standardizing. The method of voting is applied to everything and whatever the majority do is set down

as the standard. The effect of such a principle on education is, I believe, to drag down the high standard to the average, which average will go down lower and lower the wider the vote taken. Take the least satisfactory part of this United States Report we have been considering, that is, the curriculum. The Report states that "a college of arts and sciences should have as many as eleven departments." Reasonably, however, it does not expect every institution to meet immediately all requirements and makes especial mention of curriculum and income. "A College," it declares, "might do good work in a restricted field with a faculty smaller than 11 departments." As a fact, out of 250 colleges 93 report less than 11 departments; 16 make no return, leaving 145 with 11 departments or more. But is it quite fair to impose the practice of a majority on all? Is it fair to allow universities to dominate independent colleges? Is it right to convert all colleges into universities? I do not say the Report desires that, but is it not the tendency? Suppose a questionary tomorrow should show that the majority of colleges, especially those in union with universities, have fifteen or sixteen or twenty departments, should independent colleges be forced to multiply departments? The departmental system is distinctly a university plan; it facilitates the worst evils of electivism, and tends to destroy that general education which is distinctive of a college, and renders difficult all unity of education. Suppose a college should prefer a system which has stood the test of centuries and insures

a solid and unified and well balanced education; suppose it prefers a class system where one teacher teaches several subjects, must such a college be forced into the comparatively recent university system? Must the departmental system be stereotyped by a vote or determined by an average without questioning whether it is best or worst for all concerned?

The truth is that this fundamental principle of averages relied on in much of modern standardizing is narrow, is depressing, is antagonistic to progress. Even in machinery standardizing can be carried too far. Inventors and improvements would cease if standards were stereotyped. The system of averages and of voting, as practised, say in the United States Report, is too narrowing. Why take the vote of 140 colleges in the United States in the year 1918 as the norm and measure of all colleges? This is modernism and democracy gone to excess. To act so is to close the pages of history and geography and attempt to dominate the educational world by institutions and systems which are but of yesterday and of one restricted locality. If you desire to standardize properly lift your eyes above the narrow horizon of national practice, look back through the years of the past lighted up by the rays of illuminating experience, and most of all let the light of wisdom and true philosophy guide you when you are attempting the ambitious design of standardizing the immortal soul and divine intellect of man. There lived standardizers before Agamemnon's time. Who can doubt it? At any

rate Homer leaves us his standard. When Achilles was sent to be taught by Phœnix, Peleus, the father of Achilles, left orders that his son should be made "a speaker of words and a doer of deeds." A practical standard surely that is, a standard demanding results, a standard for all schools from Homer to Hoover.

The first educationalist who desired to standardize education was Gorgias, the Sophist, who came from Sicily to Athens. The Sophists were the first to advocate quantity production in education. They left their mark on education and in Isocrates produced the greatest schoolmaster of the world. Athens welcomed these and all other teachers, kept and handed down to posterity what it found good in their systems, but never attempted to mold all education by one uniform standard. It was Sparta that attempted mechanical standardization under a highly centralized oligarchy and a bureaucratic government. Athens with her liberal policy became the teacher of the world, the foundation of all arts and sciences, and Sparta has the unique distinction of having never produced a gentleman. It is the sad model, however, of a state which advocates a narrow, state-controlled, and highly specialized standard.

STANDARDIZING EDUCATION

2. *Right Standards*

DURING every age in their attempts at standardization, the most enlightened educators never cut themselves off from experience and true philosophy. The Renaissance saw many plans of education devised, all of them purporting to embody, not the average of a given locality or time, but the garnered and choice experience of all time and of every place. The humanists mostly disdained the middle ages, and so their plans, though good in many ways, were not comprehensive enough. The most ambitious attempt at standardizing education ever attempted is found in the Ratio Studiorum of the Jesuits. The Jesuit system endeavored to make a synthesis of the best in humanism and the best in medieval scholasticism. Its originators were conservative Spaniards, educated in progressive Paris, and teaching and planning in artistic Italy. The Ratio was an elaborate embodiment of the best experience of all time and was imposed after many and careful trial tests. Standardization, however, cannot stop life and freedom and progressive changes, and though the principles of the Ratio inherited from experience and based on sane philosophy are still and ever will be true, yet with the disappearance of Latin,

outside the Church, as the language of science and art and learning, with the growth of modern languages, with the discovery of modern sciences and their adoption as instruments of education, with the unceasing pressure of environment, the Ratio Studiorum, the most ambitious and most enduring of all standardizations, has been profoundly modified in different ways, by different countries.

Newman's Lecture on Christianity and Letters in the *Idea of a University* is a conspicuous example of the breadth of view and wealth of experience which should go into any standardization. How insignificant and uninspiring is Bulletin No. 30 basing its proposals on two hundred replies about what are really the externals of education when contrasted with the solid deduction of two thousand years which are drawn not from prospects or pretensions but from manifest results achieved in ten thousand schools of the Christian era. Any method which excludes from consideration either purposely or by oversight the successes of the past is bound to repeat the failures of the past. Modern educationalists are pragmatic in philosophy. They believe that truth cannot perish, that error cannot come to life again, that what now is done by the majority is true. Some modern educators are evolutionists and believe that everything is evolving to greater perfection and that today is always better than yesterday. If they were logical to the whole extent, their very philosophy should show them that pragmatism and evolution negate all standardizing. But even in their philosophy they are short-

sighted and inconsistent. They grasp at the majority practice of today and wish to stereotype that into a standard, although on their own first principle, pragmatic tests may tomorrow shatter their standardizings, and evolution, if true, must utterly cast them aside. How can one possibly standardize William James' stream of consciousness or how can one stereotype the perpetual flux of pragmatism and evolution? Unless there exists absolute, unchangeable truth there can be no standardization at all. To standardize is to fix a norm or rule of measurement, and there can be no fixed measurement of something always changing. You might more easily measure by means of a piece of elastic the current circling in the Niagara rapids as to establish a standard in a pragmatic and evolutionary world.

Another government bulletin, Bulletin No. 35, 1918, attempts to do for high schools what Bulletin 30 does for colleges. These government publications which at one time might have been neglected are now deserving of careful study if a highly centralized bureau of education backed by millions of money is about to be imposed upon us. Bulletin No. 35 is entitled *Cardinal Principles of Secondary Education.* This proposed standardization is far more dangerous and revolutionary than Bulletin No. 30. The latter document is at least based on facts and errs only in wishing to make a few facts the measure of all time and places; but Bulletin No. 35 practically ignores all facts, proposes an entirely new kind of high school and one based on an entirely false

philosophy. See the chapter, A Revolution in the High School.

These educators and standardizers are legitimate descendants of Brougham, Peel and the other utilitarian theorists whom Newman refutes so fully and so thoroughly in the Tamworth Reading Room discussion and in the *Idea of a University*. Indeed Newman's Idea of a University is a storehouse of the true philosophy of education, and furnishes an ideal basis for true standardization. What after all is Newman's *Idea of a University* except the determining of the standard elements of a real University and real College.

Note this passage as an answer to the latent materialism and to the false tendencies of Bulletin No. 35: "You see then, there are two methods of education; the end of one is to be philosophical, and the other to be mechanical; the one rises towards general ideas, the other is exhausted upon what is particular and external. Let me not be thought to deny the necessity or to decry the benefit of such attention to what is particular and practical, or belongs to the useful or mechanical arts; life could not go on without them; we owe our daily welfare to them; their exercise is the duty of many, and we owe to the many a debt of gratitude for fulfilling that duty. I only say that knowledge, in proportion as it tends more and more to be particular, ceases to be knowledge." (p. 112.) "True knowledge," he continues, "is not a mere extrinsic or accidental advantage, which is ours today and another's tomorrow . . .

it is an acquired illumination, it is a habit, a personal possession, and an inward endowment."

The proposed standardization of secondary schools is based upon false and materialistic principles. That it is also unhistorical needs no proof. Except for brief references to a very recent past, the history of education and the experience of centuries are ignored. As in the case of the standardization of colleges, the average or majority of the present is assumed to be the true guide, and so allusions to the failures or successes of history are considered pedantic and futile. We should not wonder that education is running round in a circle, diligently repeating failures.

The most serious defect of this proposed standardization of secondary schools is its destruction of all order and unity in education. It establishes seven objectives of secondary education and then straightway practically forgets them all except vocational training. Listen to this principle: "The contact and teaching methods of every study should be adapted to the capacities, the interests, the needs of the pupil concerned. In certain studies these factors may differ widely for various groups of pupils, e. g., chemistry should emphasize different phases in agricultural, commercial, industrial, and household-arts curriculums."

It has been the common belief and practice of educators that you must first train the individual before you adjust him to life. This new system supposes in its vocational guides or in its pupils preeminent seers who will, at the age of twelve,

adjust each individual to a specific form of chemistry which he will need in the one of ten thousand trades to be elected by him. Such a system would teach a baby to dance before it taught it to walk or rather, looking at its feet, it would not impose on it actions common to every dance but would insist on a highland fling, a sailor's hornpipe or a fox-trot for the baby before it even had learned to walk.

This proposed standardizing, fathered by the National Educational Association and broadcast by the Bureau of Education will turn education topsy-turvy, waste money like water and saddest of all will spoil the brains of the pupils and render them unfit for any vocation. It will make a veritable witches' caldron of our children's minds and the old, old complaint of untaught children will continue to be heard. In Bulletin 45, 1918, of the Bureau of Education, entitled *Educational Survey,* we have a résumé of a survey of the Gary Schools, undertaken by the General Educational Board. What is the conclusion? In the five common subjects of writing, spelling, arithmetic, English composition and reading "the product of classroom teaching of the fundamentals listed above is poor in quality and inadequate in amount; it approximates in character the product of the poorer conventional schools." Are the surveyors convinced that if you divide the energies of pupils you cannot achieve the same results? No, they cannot see that the socialization of school work is wrong or affects the fundamentals favorably or unfavorably. Rather than give up

their theories, the surveyors would believe that the much lauded tests are out of date and "must be revised or entirely reconstructed in order to keep up with the modern socialized school." (p. 26.)

Hitherto we have been more destructive than constructive. What should be the positive principles of true standardization? Those principles follow from the rejection of false principles and have been implied in all the foregoing discussion. This is the way I should formulate them explicitly. Time does not permit their proof and development.

All standardizing should rest on sound philosophy, on enlightened experience and on tested historical tradition. A standardization based on the average of a certain time and place is narrowing and stereotyping rather than helpful. For free and intelligent beings a clear purpose and a lofty ideal are more beneficial and inspiring than mechanical programs. A standard rightly understood and properly devised should have order and therefore unity, division and subordination in its details. Education may be defined as an adjustment to life, but as future conditions, future occupations are unknown, to strive to adjust pupils to the multiplicity of unknown conditions and unknown occupations is impossible and the attempt destructive of true unified education.

Education of the man should precede education of the business man, or the tradesman or the professional man; education in the arts of life should precede education in particular sciences or

vocations. Any other course divides the energies of the pupils, interferes with the proper development of manhood and all its powers, and results in inferior products. If the general intelligence of a country is lowered, all business, all trades, all professions will be correspondingly lowered, even though a superficial acquaintance with scientific terminology and a showy pretence at many sciences may be widespread. Manual dexterity, or glibness in the use of technical terms, or playing with vocational toys, cannot give power of thought or keenness of judgment or accuracy of reasoning. Every trade, every profession, every vocation will suffer if its candidates have not been well grounded in language which is the only practical test of intelligence and the proper use of which is the only certain way of exercising and developing the growing mind of our young. With language should go those other common branches needed by everybody in life and therefore the best preparation for all vocations in life.

Differentiation of pupils should not take place until the individual has received the fullest development of his capacity through the tested means of education. The increased leisure of modern life calls for more insistence on so-called cultural subjects than ever before. Improved methods will shorten the time in which a pupil may learn how to write and to speak clearly and how to fill up his leisure with solid reading, but nothing should be allowed to impair the full attainment of these results.

When partial differentiation does take place,

there can be no adjustment to the thousand, particular vocations of life, but rather adjustment must be made according to standards which are certain. No one knows the future in detail, but there are certain groups into which all mankind may be divided, and there are elements common to each of these groups, as there were elements common to all to be taught in the elementary schools.

Secondary students may be grouped roughly under three categories, trade, business and professional. The common element in all will be a mastery of interesting and forceful English, an acquaintance with the history and geography of other countries, and mathematics of greater difficulty. To these common elements for all three kinds of schools should be added elements common to each of the kinds. What these elements are has been in part shown by experience and by fact and in part they are yet to be determined for business and trades. We can say with certainty that to specialize early will be to divide energies, impair the acquisition of what is common and necessary and so injure the special efficiency which differentiation was intended to improve.

In colleges again we must be fair to all professions by considering first the student who is to be developed and then next the professions to which he is to be adjusted. There should not be in colleges any excessive demands for one profession over that of another. Such discrimination is unfair to the student whom it specializes too

early and unfair to the profession, which is really injured by inferior candidates. The medical profession has deserved well of the colleges by demanding college work as a preliminary, but the medical profession will injure the colleges and deprive its own candidate of the best quality if colleges are changed into pre-medical schools by the imposing of specific subjects. What doctors demand for medicine, journalists will demand for journalism, and dentists for dentistry, and bankers for banking, and lawyers for law and technical experts for their own technique. This way leads to disorder and confusion and to the destruction of the colleges and to dilettantism.

As with elementary and secondary education, so in colleges we must adjust ourselves to the permanent and abiding features of all professions. Such a method alone insures a fair treatment for students, for colleges and for all professions.

History, experience, sane philosophy and every test have all shown that leadership in any profession cannot be achieved unless the powers and capacity of candidates receive fullest development, that the man must be educated for life and its leisure as well as for profession and office hours. Technical training cannot supply that rounded development; indeed without training in the common and permanent features of all professional life, technical training is dwarfed and dehumanized. The student becomes a technicist and ceases to be a man.

What are those comprehensive features which time and wisdom have shown to be necessary to

a standardized college? They are the mastery of English speech and composition, the broadening and enriching contact with our civilization through the classical languages and history, the general principles of molecules through physics and of atoms through chemistry and of life through biology and of finance through political economy, and finally the transcendental principles of all knowledge through metaphysics and psychology, and the ruling of all conduct through ethics.

A REVOLUTION IN THE HIGH SCHOOL

THERE lies before us a publication issued by the Federal Bureau of Education and representing also the views of the National Educational Association. The publication is entitled: *Cardinal Principles of Secondary Education, a Report of the Commission on the Reorganization of Secondary Education Appointed by the National Educational Association.*

Much of the Report is phrased in vague generalities, which appear to say something and actually say nothing. One instance may be cited. The Report proposes seven objectives for secondary education, and declares that "no curriculum in the secondary school can be regarded as satisfactory unless it gives due attention to each of the objectives." [1] Then, after enumerating the objectives, the Report continues with this very illuminating statement: "Due recognition of these objectives will provide the elements of distribution and concentration which are recognized as essential for a well-balanced and effective education." Translated into plain words this would seem to mean: "Balance these seven purposes well, and they will be well balanced." But how are they to be made short or long, you ask, and you are referred to "seventeen other reports in

[1] P. 20.

which the principles are applied to the various aspects." If a great deal of the Report were stated in plain terms, the government bill for printing would be less, and much would be rejected as absurd or awaken such controversy as would show the whole scheme to be impractical.

The Report "regards the following as the main objectives of education: 1. Health. 2. Command of fundamental processes. 3. Worthy home-membership. 4. Vocation. 5. Citizenship. 6. Worthy use of leisure. 7. Ethical character." [1] There will be no disagreement about these objectives, and everyone will be glad to note that four of the seven are practically concerned with education of the will, although worthy home-membership, as distinguished from other objectives, is not as formidable as it sounds, consisting chiefly in sewing and cooking for the girls and in reading books and playing of music for boys and girls. The reader will observe that the seven objectives include the well-known division of a full, rounded education into that of body, of mind and of will with the addition of the spheres in which these are employed, home and state, occupation and leisure. The elaborate phrasing of these purposes illustrates again an undesirable feature of the Report: its failure to say a simple thing in a simple way.

The outstanding feature of the Report is the rearrangement of early school-life into what is familiarly styled the "six and six" plan. "We, therefore, recommend a reorganization of the

[1] P. 10.

school system whereby the first six years shall be devoted to elementary education designed to meet the needs of pupils approximately six to twelve years of age; and the second six years to secondary education designed to meet the needs of pupils of approximately twelve to eighteen years of age." [1] The latter six years are subdivided into what is known as junior high school and senior high school of three years each.

One might inquire what difference is this regrouping going to make? We shall see presently. Note a possible advantage which concerns our high schools. Under the recommendations of the Bureau of Education, pupils are advised to begin the study of foreign languages at twelve. In many States pupils are now studying Latin at that age. Why not let such pupils enter high school at once and be ready, as they will easily be, for college at sixteen? Our present system is two years longer than in Europe without enough gain to justify the extension.

What is the real reason why the Report advises the six and six plan? Because it is in favor of a radical change in the nature of secondary education. Educators were fondly believing that electivism was a dead issue in American education after its dismal failure in colleges.[2] But educators were mistaken. Electivism has become vocational training, and the election of courses which is found impossible or impracticable at eighteen,

[1] P. 18.

[2] See *Scribner's*, February, 1919, *The College: Today and Tomorrow*, by Dean Roe of Wisconsin University.

is to be gravely enjoined on the philosopher of twelve, who is to elect his vocation in life at that mature age.

Could anyone believe that the National Educational Association would father and the Federal Board of Education stand sponsor for so grotesque an offspring? Here are some significant passages: "The school should provide as wide a range of subjects as it can offer effectively." [1] "Especially in the junior high school the pupil should have a variety of experience and contacts in order that he may explore his own capacities and aptitudes. Through a system of educational supervision or guidance he should be helped to determine his education and his vocation. These decisions should not be imposed upon him by others." (Here perhaps the bewildered teacher might betake himself to Bulletin 19, 1918, *Vocational Guidance in Secondary Schools*. If he does, he will return unenlightened but burdened with a load of profound platitudes.) But to return to our twelve-year electors. "Flexibility should be secured by election of studies or curriculum," by "possible transfer from curriculum to curriculum." Even within the same studies there must be no limitation with free and unrestricted choice of our grave juniors. "In certain studies these factors (capacities, interests and needs of the pupils) may differ widely for various groups, *e. g.*, chemistry should emphasize different phases in agricultural, commercial, industrial and household-arts curriculums."

[1] P. 21.

Only the delectable irony of Miss Repplier could do full justice to the junior high teachers conducting a Woolworth Store for the twelve-year-old explorers of their capacities, electing now agricultural and now household-arts chemistry but always with the possibility of transferring their aptitudes to commercial haberdashery or industrial macaroni- and candy-making.

When the junior high has escorted its pupil for three years to various possible curriculums, all the time "imposing nothing" on the pupil, yet "organizing" each year's work that the pupil may leave at the end of any year according to the grand principle of the "subordination of deferred values," [1] what then is to be done? Our Report takes us then to senior high. "The work of senior high school should be organized into differentiated curriculums. The range of such curriculums should be as wide as the school can offer effectively." [2] Six curriculums are suggested but in a "broad sense." Everything is ample about this Report except common sense. What of our old-time high school? It gets one sentence in passing, as an afterthought. Oh, yes, by the way: "Provision should be made also for those having distinctively academic interests and needs." Academic! Alas, poor academic, once a fellow of infinite wisdom. Where be your glory now? Hail, vocational; you are now king.

The Report, after electing and adopting and transferring and differentiating, begins to think

[1] P. 17.
[2] P. 22.

of what it calls the "unifying function," and it declares with its usual platitudinousness, which would be humorous were it not so sadly serious: "With increasing specialization in any society comes a corresponding necessity for increased attention to unification. So in the secondary school increased attention to specialization calls for more purposeful plans for unification." The only reply is: "It surely does." But vain hope! You cannot stop this vocational electivism anywhere for anybody at any time. So, though the Report advises "constants," (Are they to be "imposed?") it goes on to propose "curriculum variables." Perhaps you think you now have some unity. Do not be too precipitate. For fear your young pupil, who is being trained all this time in "worthy home-membership," should be differentiated and made constant too soon, you are told: "In the seventh year, that is the first year of the junior high school, the pupil should not be required to choose at the outset the field to which he will devote himself." The principal, or one of the seventeen additional reports, "will organize several short units of real educational value in addition to their exploratory value." The Report continues to urge the schools to keep on exploring and differentiating and yet always organizing and unifying and preparing, and thus concludes this section: "Above all, the greater the differentiation in studies, the more important becomes the social mingling of pupils pursuing different curriculums." As a final "unifying function," if there is no unity in the studies, the students can

get together in a dance or in a play or in a football game if nowhere else.

The Report may advocate specialization of courses but it will have no specialization of schools. There will be no Classical High or Latin High or English High or Manual Training. No, everything must be in one building. At last we have unification. Woolworth's building is constant whatever may be said of the purchasers, clerks or commodities.

We have cited enough to show the extraordinary nature of this document. How can we explain the serious advocacy of an impossible scheme? The framers of this Report are following logically a false philosophy and their conclusions are a veritable *reductio ad absurdum* of that philosophy. The Report denies the possibility of general training and upholds the theory of equivalence in studies, and all the rest follows logically to confusion worse confounded. The Report, indeed, states that "the final verdict of modern psychology has not as yet been rendered on subject values and general discipline." [1] Theoretically the Report says there is no final verdict, but practically the Report accepts the fact as proved.

It is not prudent, to put it mildly, to impose electivism on the whole country when perhaps most Americans will wish freely to elect prescribed courses. Neither is it honest to give the verdict of not proven to general discipline and to excellence of particular studies. First of all

[1] P. 8.

the whole educational world from the beginning down to Herbart held, at least in practice, to general discipline.[1] Then, secondly, as Professor Cameron and Professor Shorey and others have pointed out, modern psychologists in recent years, though at first awed by the name of William James, have since tested his proofs and have found them decidedly wanting. We never, indeed, can have complete agreement among psychologists, but anyone conversant with the recent literature on the subject will know that the theory of general discipline has been proved by many satisfactory experiments.[2] There is, indeed, no agreement on the explanation, but he would be very courageous, or a member of the Commission on the Reorganization of Secondary Education, who would deny the fact of general training.

The report practically ignores the educational value of languages. There is not a word about clear thinking, about judging, reasoning, developing imagination, cultivating taste. These "capacities or aptitudes" are practically denied although a few brief references are made to "various processes such as reading, writing, arithmetical computation and oral and written expression, that are needed as tools in the affairs of life," and "command of these fundamental processes, while not an end in itself, is neverthe-

[1] *Educational Review,* September, 1918: *Formal Discipline, Past and Present,* by Edward H. Cameron, Yale.

[2] See Professor Cameron's article above and Professor Angell and Professor Pillsbury on Formal Discipline, in *Latin and Greek in American Education,* by Kelsey, pp. 344-396.

less an indispensable objective." [1] The Report admits general health for the body, general character for the will, but will have none of general discipline for the mind.

So much for the unproved, inconsistent and imprudently experimental philosophy upon which the Report is based.

It is small wonder the wealth of the Federal Government is needed for such a scheme. Vocational Training is the most costly experiment that can be imagined. It intends to experiment with the brains of our children; it proposes and must propose countless vocations with highly specialized sub-divisions; it contemplates building up a whole system for this with our money; it will multiply the cost of education nearly twenty times, and then it will not accomplish its purpose. The educational experience of all ages was sure of only one thing, that pupils will have brains and tongues and minds and wills all their lives, and it sets out to train them. The Report, however, calls for the penetration of a super-seer to comprehend a pupil's aptitudes, and calls for the vision of a super-prophet to prognosticate a pupil's future occupation. There is your choice, American citizens; do you accept the common sense of ages or do you wish to lavish your money on an experiment which contradicts all experience, is based on a false philosophy and calls for impossible qualifications in teachers and pupils?

It would be difficult to compute exactly the cost

[1] P. 10.

of such a scheme as the Report advocates, but we may approximate by taking the cost of teaching various branches as stated in one of the "seventeen special reports," *Reorganization of English in Secondary Schools,* Bulletin, 1917, No. 2, page 152. In that report the average teaching cost per pupil of the five branches, English, Latin, French, History, Mathematics, in certain schools, amounted to $43.49 and the equipment cost per pupil was $7.66; while for the five branches of Physics, Chemistry, Manual Training, Commercial, Agriculture, the teaching cost was $66.62 and the equipment cost was $71.12. The average annual increase of expense per pupil was for the former five branches ten cents, and for the latter one dollar and eighty cents, or eighteen times as much. All this for that highly pampered darling, secondary education, while scarcely a word is heard about elementary education. The *Second Annual Report of the Federal Board of Vocational Education* [1] states that in 1915, 91.03 of our children were in elementary schools, 7.13 in secondary schools, and 1.84 in higher institutions. In view of these figures the Federal Board of Education and all State Boards should see to it that the ninety-one are educated before the seven, who in most cases can pay for their education, receive the expensive and experimental vocational training. Democracy requires that all should receive the necessities before a privileged few are given the luxuries, and educational facilities in buildings and teachers for the lower grades

[1] P. 52.

are not nearly ample enough, at least in the larger cities. Americanization and elimination of illiteracy must begin there. It will be too late in the secondary school when ninety per cent have left.

IS THE AMERICAN COLLEGE DOOMED?

SOME would answer the question I propose by declaring that the American college has already ceased to be. The American college is an institution which arose from a modification of inherited European tradition; its purpose is or was to give a liberal education or general training preparatory to a university. The French *lycées,* the German *gymnasia,* the English public schools, like the Jesuit schools, are all representatives of a common educational tradition, which survives in them with various national and local modifications. America took over this tradition and brought into it a division that did not exist in the European schools. America had no universities of the European type and so devised a shortened course for those who could not go abroad. Harvard and Yale were originally divinity schools and at the same time preparatory in the European sense, and from that combination arose the American college, which was part university and part not.

American elementary schools were modeled on the Prussian *volkschule* and were made, unfortunately, eight years for all, although in Germany they were eight years only for those who had no further education. Between the elementary

schools and types of schools like the early Harvard College grew up private academies, which produced the prevalent type of high school when the state took up the financing of secondary education. Various tendencies have begun to operate on the American school system and as a resultant of these converging forces the American college is in a precarious condition, if not practically extinct.[1]

There is first what may be called the university tendency. Colleges began to demand more and more preparation for entrance and shifted increased work upon the high school, which in turn passed on what it could to the elementary school. Note the changes made in the requirements for English. In Harvard College, in 1865, for entrance, candidates were examined in reading aloud. In the early seventies, correct spelling, punctuation, and expression, as well as legible handwriting, are expected of all applicants, and such authors as Goldsmith *(Vicar of Wakefield)* and Scott *(Ivanhoe,* and *The Lay of the Last Minstrel)* were assigned. Students are supposed now to have all this on entering high school. The English has been pushed forward four years. The same condition is found in nearly all other studies, though not always to the same extent.

In another way too, the university has been

[1] In the *Atlantic Monthly,* April, 1927, George Herbert Palmer indicts the Junior College as destroying what was distinctive in American education as distinguished from European. "As soon as Junior Colleges become usual, universities will drop their freshman and sophomore years. This has already occurred at Johns Hopkins and Stanford."

crowding out the college. Law, medical and other strictly university schools have been established in connection with former colleges. Naturally those institutions wish to keep the college students in the professional schools. Undergraduates are encouraged to enter their own professional schools before graduating, and pre-medical, pre-law, and other courses leading to professions are introduced into colleges, first in senior and junior years, and now in sophomore and freshman years. The departmental system by which the college was divided into different faculties was an imitation of university methods. The elective system found in the departments an apt field for development, and these two tendencies completed the work of changing the old-time college into a university. The American college is practically extinct. The name remains; the reality has disappeared.

While the body of the college was gradually modified, a more deadly attack was made upon its soul. The American education, with all education as far back as history takes us, was based upon the principle of formal discipline or general training and on the conviction that certain studies, chiefly of language, were most suited to convey that general training. Modern psychologists attacked both of these traditional assumptions. Educators declared, under the leadership of Dr. Eliot, for the equivalence of all studies. Anything, it would appear, would educate anybody if the teacher was competent. William James of Harvard seems to have led in America the attack

on general training. Theoretically, it was claimed that there were no faculties. Capacities, needs, interest, aptitudes are the words used by Dr. Flexner and by the National Educational Association Commission in its Report on the *Cardinal Principles of Secondary Education*.[1] Practically, these modern psychologists denied any common capacity or faculty which would be a supporting medium for general training. All capacities were specific, and there was no transfer from one to another any more than a good ear made a good eye. William James, too, claimed to have proved that the memory was not trained by use.

Now American colleges, like the English schools of Eton, Harrow and other public schools, or like the French *lycées* and German *gymnasia,* professed the principle of general training, and even when American colleges took in university work, it took at first such subjects as philosophy and history and other sciences which had a comprehensive scope and wide bearing, making them, as was held, more suitable for imparting a general training. When, therefore, under the teaching of James and his followers, who were a power in normal schools, the doctrine of general training was attacked, the colleges were touched in a vital spot, and their courses of studies tended to become more specific.

The attacks, too, of men like Crane of Chicago on the social evils of American college life and the reiterated insistence of him and others upon the advantages of the so-called practical pursuits

[1] Bulletin, 1918, No. 35, Bureau of Education.

had a share in changing the nature of the college. The fantastic theories of college professors from Andrews of Brown to Scott Nearing and the college socialists of today tended to the same end.

These were the various disintegrating agencies which have been at work, and it really would seem that the American college has been changed in body and soul, retaining only its name. On the other hand, there were a few conservative tendencies at work. While State colleges, and Harvard, succumbed at once, while Columbia followed soon after, with Yale gradually yielding until now it has completely surrendered, Princeton under the guiding spirit of Dean West and its inherited Scotch philosophy and Scotch common sense has been a stronghold of conservatism. Only Princeton of all our great Eastern colleges could have held a conference on classical studies, boldly reasserting the world-old principles in the face of modern revolution and even during the stress of the war. A courageous act, much to the credit of Princeton's zealous Dean! In many of the other colleges there are individuals and societies actuated by the Princeton spirit. Professor Kelsey of the University of Michigan was the inspiration in large part of the Michigan classical conferences which have been held since 1895 and which have produced several fine publications, notably *Latin and Greek in American Education,* a deserving work promised in a new and enlarged edition.

This last work (1911) showed psychologists beginning to react against James and his followers.

Professors Angell and Judd of Chicago with Professor Pillsbury of Michigan took a stand against the exaggerations of special training. Experimenters everywhere have shown that James's experiment on himself was almost certainly imperfect, and inconclusive if true. Professor Cameron of Yale [1] marks an advance for the defenders of formal discipline, though he, with Professor Angell, seems to put the general training exclusively in the will, and so their conclusions will not be effective against those who uphold the equivalence of all studies. Dean Roe of Wisconsin in *Scribner's* [2] raised a strong voice for the American college and for a liberal education. All friends of true education read his splendid article with satisfaction and approbation. Dean West of Princeton had an equally deserving article to the same purpose in the *Educational Review* for February, 1919.

The doctors, the lawyers, and recently the dentists, in demanding higher standards from candidates for their professions have been conservative factors; but just as they thought everything was settled, the pre-medical classes were brought into college and, as similar provisions will likely be made for other professions, the requirements of general training will soon be lost to these and other professions. What is worse, electivism under the guise of vocational training has moved down through college and high school and is now to be introduced into the grades. If the

[1] *Educational Review,* Sept., 1918.
[2] February, 1919.

proposed changes meant that our students could, as in Europe, begin their general training at twelve and carry on their prescribed studies in general training until twenty and then apply themselves to medicine, law, divinity, engineering, the high standards of our professions would not be lowered. But, unhappily, such is not the plan. Students of twelve are to be encouraged to try all kinds of trades and vocations and to be transferred from one curriculum to another during the ages of twelve to fifteen and then they are to be differentiated for more experiments and for early specialization. The pre-professional class may begin at twelve, and so there is an end to all the plans and hopes of a rounded education and a well-developed mind for law, medicine, and all the professions.

What now of Catholic colleges? How have they fared in the breaking down of the old collegiate institution? As we should expect, they have resisted more tenaciously. For this there are two chief reasons. Catholic colleges are always more conservative than other colleges. Latin and Greek are not foreign languages in the Church which has spoken and written and still speaks and writes in those languages. The Church has been the humanizer of the world, and the classical languages have been her chief instrument. Another factor in keeping Catholic schools conservative is the expense. They are private schools and have no public money or rich offerings with which to experiment on new means of education or to equip high-priced scien-

tific schools. Besides, the religious orders who conduct our colleges have not been prepared for all these various schools and are not able financially to pay lay teachers, even if there were not difficulties in both lay and clerical teachers against a perfectly harmonious combination in the same institution.

Despite these and other causes of keeping Catholic colleges true to the old ideals, they too, however, have gradually succumbed to the tendencies of the times, and to the glamor of the practical. Schools of engineering, schools of journalism, of science, of commerce, of diplomacy, of foreign trade, and of other topics, have been organized in connection with Catholic colleges. Pre-medical courses are common and other such pre-professional studies will soon be on the way. The vicious system of electivism and of easy courses for athletes or for careless students, the domination of the practical over the liberal, the reliance upon showy and shoddy courses, instead of upon excellence of teaching, these have entered into Catholic colleges as well as into other colleges. Indeed while other colleges seem to be facing away from multiplicity back to unity and to the old liberal education, as Dean Roe bears witness in the article already cited, Catholic colleges are rapidly travelling the other way. Their sane and sensible conservatism which kept them secure so long has finally yielded to the pressure just as some of the disillusioned are coming back to the wisdom of ages. The preparatory seminaries of the country are almost the last refuge of liberal education,

and with their growth the church may feel reassured that its clergy, as ever in the past, will continue still to be educated and refined and will remain the sole representatives of the time-honored liberal education.

THE PHILOSOPHICAL BASIS OF MENTAL TESTS

1. *Averaged Operations*

LUCKILY the baby does not foresee the army of specialists facing it, as it enters life, else all the adrenalin in the world could not make its benumbed heart function and start bravely upon its beat of life. Let us suppose the baby has successfully escaped eugenics and Sangerism; let us suppose that we welcome the infant even before Freudism has given it subconscious images, although, according to the Freudians, that is very early in its life. Begin then with zero hour in the baby's mental existence. There is much discussion in the literature of mental tests about the zero point on the various scales. The only true and absolute zero point for man is the *tabula rasa* of his infancy. The Platonic "trailing clouds of glory," celebrated by Wordsworth, are not visible upon that *tabula rasa* except to the creative imagination of the poet. No metempsychosis leaves on that white waxen tablet the experience of any other soul, beginning life again in a new body. Mendel indeed gives to the child's body the blented traits of ancestry, and bone and sinew, blood and hormones; nerve centers and sensory extremes are bequeathed by inheritance as instru-

ments with which the baby will write upon the virgin tablet of its soul. In simple language, the baby begins its mental existence with a clean slate.

The best philosophy assures us that there are no innate ideas; the best philosophy and experience and common sense manifestly show that there is nothing in the mind which was not previously in the senses. All true philosophy has been and must be built upon that basis. The initial arguments of true philosophy are *a posteriori,* not *a priori.* We must argue from effect to cause before we may argue from cause to effect. The *tabula rasa* of the child must be written upon before we can read the message or can even know that there is a *tabula rasa* within the child at all. Mental tests, then, which are mental operations, are no new thing in the world. All sound philosophy has been deduced from the actions and reactions between that *tabula rasa* and the outer world. Philosophy has been using mental tests since days long before the funeral of Tutankhamen. Man operates vitally, therefore he has a principle of life; he operates spiritually, therefore the principle is spiritual; he operates imaginatively in his mental life, therefore that principle is in part also material; he operates with freedom, therefore the principle is free. All these operations are performed by one being, therefore the principle of life is one. These conclusions are established by reading what is written on the *tabula rasa,* for the operations of the mind are the language of the mind registering an impression within and con-

veying without an expression which he who runs may read.

Before we can reach the mind of the child, the child's mind must reach us. The mind must work; must operate; must express itself. Its operation is an effect possessing certain qualities which enable us to argue back to like qualities in the mind, that is, to the cause of the operation. If mental tests did not admit the principle of causation, there would be no validity to the conclusions drawn from them. The image in the sealing wax is conclusive proof of a like image in the seal.

Again, the mental operation presupposes an object. Knowledge is objective before it is subjective. No one can know even his own mind except through actions of his mind which originally were caused by the senses. Some of our mental testers have as naïve ideas about the conception of thought as Topsy had about parentage. Thoughts don't "just grow." Thoughts are not inborn; they are not spontaneously generated. The very first impulse that is perceived by the child writes its impression upon the tablets of the mind, and before the baby can act mentally in expression, it must have received mentally an impression. That important fact shows the absurdity of the child test proposed by Psammitichus of Egypt in Herodotus, where two babies were reared without any language and would therefore, it was supposed, speak man's first language. The baby probably would speak a decidedly primitive language which the greatest language inter-

preter, and she alone, could translate, namely, the baby's mother. (*Herod.* II, 2.)

The fact is that the child is going to school from the very first moment of mental awareness, but when that very first moment is, I don't know, nor does Freud, I suspect, know, and if he does not, no one, not even Macaulay's omniscient English schoolboy, pretends to know. Put this down, therefore, as certain that mental tests, before the Kindergarten, whether you like it or not, are examinations in the schooling of environment. This is a far-reaching truth of the utmost importance and throws a flood of light on mental tests and destroys a hundred false inferences drawn from their use.

Recall briefly what has been so far stated: the mind of the baby is originally a blank; it is acted upon by its environment and it reacts in thought whose expression is an operation. *Operatio est perfectio esse* is a well-known and philosophical axiom, which may be freely rendered, the test of perfection is operation. Binet starting with that idea, although he might not be aware of the axiom, assumed that intelligence could be summed up in four operations, comprehension, invention, direction and criticism. Binet had a philosophical assumption involved in the choice of these four operations. His philosophy defined intelligence as that operation which successfully copes with a new situation. Let me here say in passing that every mental tester assumes some definition or other of intelligence and selects characteristic actions which seem to him the peculiar and ade-

quate expression of that intelligence. In that assumed definition of intelligence lies a fertile source of fallacies.

Father J. de la Vaissiere, S.J. *(Psychologie Pedagogique,* Beauchesne, Paris, 1916, pp. 168 sqq.) analyzes these four operations of Binet and shows that they are in full accord with traditional and sound philosophy. Meumann, quoted by Gregory (*Educational Measurement,* Appleton, 1922, p. 117), improves upon Vaissiere and analyzes, not Binet's statements of what he proposed to test, but the actual tests themselves and finds seventeen operations in three groups. Yerkes *(ibid,* p. 113) by analyzing Binet and by further additions increased the number of operations to twenty. Both of these lists can easily be reconciled with scholastic philosophy, but there seems to be one terror overhanging these mental testers. They are afraid of "faculty psychology" whatever may be meant by the term. Someone has evidently built up a false notion of what is understood by faculties in philosophy and now the term is taboo. It is amusing to see all these books using every synonym in the language for faculty, admitting too, as they must, the reality, and yet avoiding the term. Professor Starch *(Educational Psychology,* Macmillan) and others use powers, capacities, aptitudes, habits, functions, factors, abilities, etc., but never faculty. The word faculty is almost as scarce in these books as the word soul. Gregory (*Educational Measurement,* p. 65, sqq.) gives several definitions of general intelligence. Professor Thorn-

dike argues against a "functional unit" and a "few general faculties," because they are not bound together "by one common factor." If this were true, Professor Thorndike might be testing a different pupil every day or every minute or with every function. One individual performs all these operations, therefore why not one common factor, or in other words, one soul? However that may be, Gregory declares "that most psychologists deny the existence of this general faculty" and yet on the next page he asserts that we may measure this intelligence which does not exist. Chemists, he says, measure molecules which they cannot define, but, we may reply, that no chemist tries to measure what he denies existence to.

It is an excellent sign in the more recent books on mental testing that there is more regard paid to the assumptions upon which the tests are based. The mental testers are beginning to define their terms, to criticize their principles, to be cautious in their deductions. They are, in a word, beginning to philosophize. In Monroe's *Theory of Educational Measurements* (Houghton & Mifflin, Boston, 1923) a careful and honest attempt is made to state things exactly. Kohs' *Intelligence Measurements* (Macmillan, 1923) is another clear and reasonable presentation of the subject. Both of these books will serve as an antidote to the pretentious, special pleading of Dr. Brigham's *Study of American Intelligence* (Princeton University Press, 1923). Dr. Brigham on the basis of the army tests *(National Academy of*

Science Memoirs, Vol. XV, Psychological Examining in the U. S. Army, Yerkes, Washington, Gov't. Printing Office, 1921) claims to be able to measure the intelligence not of an individual only, nor merely of a nation, but even of the whole stocks, Mediterranean, Alpine, Nordic, into which ethnologists have divided the white races. Dr. Kohs gives twenty possible sources of error in the army tests and he does not by any means exhaust the list. The government book, however, affords no warrant for the extravagant statements that many writers have spread broadcast. The editor of *Psychological Examining in the U. S. Army* simply states facts or what he conceives to be facts, and it is that book which gives the only true and adequate definition of mind or intelligence, as they are appraised by mental tests.

Intelligence in mental testing is nothing more or nothing less than ability to perform the certain operation or operations proposed by the tester. (*Psych. Exam. in Army,* p. 573.) "By intelligence we mean the ability that manifests itself quantitatively in a set of consistent scores in all of the types of examination upon which our data are based."

Now we come back to Dr. Binet, the pioneer in mental tests. He devised nearly sixty tests, involving, as he thought, four mental operations but in reality involving many such operations, and he arranged these tests according to the ages of those upon whom they were tried. At three years of age, for example, a child should be able to point out his nose, eyes and mouth. Why

does Binet put down such a test as indicating a three-year-old mind? Because seventy-five per cent of the children upon whom he tried the test were able at the age of three to answer correctly. What exactly does such a test show? It shows, and this point is to be kept clearly in view in all mental tests, this test then shows, if successfully performed, that a certain child can perform an operation, point out nose, eyes, mouth, at the same age as a certain number of children in France. Briefly, then, a mental test is the performance of a certain operation which has been tried on others, and the result of the test is to determine one's ratio with the average performances of that group. Call that ratio what you will, mental age or intellectual quotient (I. Q.) or achievement quotient (A. Q.) or educational quotient (E. Q.) the names, the hieroglyphics, the technical terms and elaborate calculations, the arithmetical mean, the median, the probable error, the lists of figures and marshaled statistics, are nothing else except other statements of the original and true fact, and deductions from that fact. The simple truth, then, is that a mental test is ability to perform an average operation in an average way and your measure is the way you perform relatively to the average, in operation, in age, in education.

Now examine what is implied in taking a single operation tried on many and so standardized or averaged. Operation implies that a habit has been formed in the mind and in all the powers that concur to performing the operation. If it was a single chance action, nothing more could be said

about it. To conclude from an accidental operation would be like measuring the shape of a cloud by the whirling of the wind. Where, now, have the persons who furnish the averaged operation acquired that habit? Where have they lived and gone to school? These questions are important, because to apply that test to a different set of conditions at once introduces errors. Would it not be unfair and erroneous to use the examinations of one school in another school without inquiring whether the conditions of subject-matter and teaching were the same? Binet's tests used in Africa produced no results except where conditions in Africa approached those of the children upon whom the tests were first tried and averaged. The same effects were found to take place in China, in Colombia, in Belgium (Vaissiere, p. 186), where sometimes a poorer and sometimes a better score was obtained. The only fair test for the whole world would be one averaged for the whole world.

A change of even one condition may invalidate the tests. A habit may be strong in childhood and weak in manhood or vice versa. Many children have spoken a language in youth which they have forgotten later. What is true of the habit of language is true of every habit. A child may be able to repeat figures in a reverse order more readily than an adult who has a fixed habit or a settled way. Would skipping rope argue to a foot deficiency in adults or to a lack of practice? Mental tests should not ignore the philosophy of habit. Writers on mental tests have recently

been insisting on the law of the single variable, the law which we usually express by the words, "all other things being equal." To be perfectly accurate in measurement, the standard operation should be performed under the same conditions except in the single thing to be measured, and there is one condition scarcely ever mentioned in books on mental testing, but which is the most tremendous factor in all life, and that is the free human will. The old proverb has it, that you can lead a horse to water but you can't make him drink, and Dooley has amended it by saying that you can lead a boy to college but you can't make him think. So the individual human child may refuse to function at the precise moment.

THE PHILOSOPHICAL BASIS OF MENTAL TESTS

2. *Interpreting Statistics*

AS a mental test is based upon averages, the whole theory of mental tests is based upon the philosophy of statistics. Vaissiere (p. 43) states some of the precautions to be observed in drawing up and interpreting statistics. The facts should be many to establish a fair average; the average of the facts may not be applied outside the class for which they have been made; the circumstances and conditions must be the same, and care must be taken not to interpret the facts in such a way as to assert one cause of variations to the exclusion of other possible causes. In a certain town the Turks were put down as having a criminality of 300 per cent. It turned out that all the Turks there had been arrested three times, but there was only one Turk in the town. Clothes statistics of America may not be applied to Japan and even in America the standard sizes must be variously modified for individuals. It will not do for a father of six boys to follow the law of averages in buying them suits of clothes. He may truly and vehemently assert that in one hundred boys of their ages these suits will fit seventy-five. The boys will answer in a chorus, "We belong to the

other twenty-five." The clothing manufacturers and the clothing merchant do right to follow the averages; the father will give an individual examination. (See also *Statistical Method; Encyclopedia Americana.*)

To illustrate the fallacy of interpreting facts too exclusively without careful investigation of all possible factors, take the question of race mentality, which has been already referred to and is a prominent subject since the publication of the army results. The wildest and most alarming conclusions have been drawn from certain figures pertaining to foreign-born subjects of the draft. Mrs. Atherton has gone so far as to ascribe deterioration in novels to inferiority in racial stock. Advocates of eugenics and of restricted immigration have appealed to these figures. A correspondent in the *Atlantic Monthly* sees in these figures an argument for the general denseness of all Catholics. Dr. Carl C. Brigham of Princeton has written a whole book on the subject (*A Study of American Intelligence,* Princeton Univ. Press, 1923).

Dr. Brigham, following other ethnologists, divides the Caucasians or white stock of mankind into three races, the Mediterranean, the Alpine and the Nordic. Sweden is 100% Nordic; Roumania, 100% Alpine; Portugal, 95% Mediterranean. These are Dr. Brigham's figures. (p. 159.)

Now, taking a general view of the history of civilization, we find philosophy, art, religion, science and everything which we call civilization

centering in earliest ages upon the shores of the Mediterranean Sea. The races which Dr. Brigham discusses came into contact with this primitive civilization approximately in the order, first Mediterranean, then Alpine, then Nordic. By the test of history and of civilization in all its elements, these races were civilized and ranged mentally in the above order, but by the army tests according to Dr. Brigham precisely the reverse is the case, the Nordics are first mentally, followed by the Alpines and the Mediterraneans. This tremendous upheaval in what centuries of history manifest has been brought about by the examination of some hundred men for forty-five minutes in a few operations arbitrarily chosen, chiefly in the first instance to select officers for a large army. What must we conclude? Is history wrong? Is Dr. Brigham wrong? Or are both wrong? Or what?

Fortunately, there comes to hand a more recent book by another doctor in mental testing, Dr. S. C. Kohs *(Intelligence Measurement,* 1923) and his limitations to be noted in the army tests are sufficient in themselves to invalidate Dr. Brigham's thesis.

Dr. Kohs is not indeed directly answering Dr. Brigham. Both books were apparently in press at the same time. Yet it so happens that Dr. Kohs is concerned that the army tests made out the average intelligence of America as thirteen years and a half. The whole country has been tremendously excited by this statement, and the mental testers have taken alarm and are begin-

ning to explain away the figures. Colonel Robert M. Yerkes in the *Atlantic Monthly* for March, 1923, reassures the country and makes out the draft average to be fifteen years, while the average for the world, or at least, the Standford-Revision-Simon-Binet-world, is sixteen years. Colonel Yerkes with more enthusiasm than is displayed in his cautious editing of *Psychological Examining in the U. S. Army* has been diligently advertising the fact that the foreign-born Irish of the draft were inferior to the English and Scotch. By the way, according to Dr. Brigham, Ireland is 30% Nordic and 70% Mediterranean, while England is 80% Nordic, 20% Mediterranean and Scotland is 85% Nordic and 15% Mediterranean. The number of foreign-born individuals from whose examinations conclusions have been drawn were 12,407 in all, extending from 4,000 Italians to about 140 each from Sweden, Holland and Belgium. The numbers from England were 411, from Scotland 146, from Ireland 658.

All these writers speak of intelligence but it must be remembered that intelligence in this case means the performance of certain operations for forty-five minutes. These operations have been arranged for persons of a certain time, place, age and condition and are full of error when applied elsewhere. Averages calculated for large numbers are deceptive when applied to small numbers as likewise are averages of small numbers applied to large. According to Dr. Kohs (pp. 238 sqq) the tests penalized the inferior more than the

superior men, especially between readers and non-readers. In certain instances a difference of one to three years was shown between Binet tests and Army tests. Besides, says Dr. Kohs, the women were not tested in the draft. Some might be so cruel as to say that that fact raised the figures.

These and other considerations show that it is fallacious to apply an operation arranged for one class to another class. But it may be argued that at least as between English and Scotch on the one hand and Irish on the other conditions seem equal. So states Col. Yerkes *(Atlantic Monthly,* 1923, March). But this is not so at all. The English and Scotch group were a distinctly superior group. "The percentage of men from England and Scotland," says Col. Yerkes himself *(Psychol. Examining,* 696) "who took alpha (that is, examination for literates) is even higher than the percentages of the whole draft who took alpha." The percentages were England, 91; Scotland, 85.6; Ireland, 64. Is it remarkable that a superior group should come out superior?

Operations are an evidence of habit, if not they would be utterly useless as measures of ability. Now the habits which are responsible for the operations were acquired both in school and out of it. The total environment, local, social, industrial, and everything else must be the same intrinsically and extrinsically before any conclusion can be drawn from one operation to one habit. Dr. Brigham and Col. Yerkes may show that attendance at school or language do not cause the

differences, but there are other factors besides school. The truth seems to be that people brought up in an industrial environment were better able to pass the Army tests than those from the rural districts. The fact would partially account for the superiority of the Northern negroes over Southern. Dr. Brigham (p. 89) quotes the Army tests are showing "a steady increase in the average scores with increasing years of residence" in America. He thinks that now we are getting inferior material, that every five years a proportionately inferior grade comes to America. The more likely reason is that these peasants of Europe will be schooled by environment just as others of their race were. The Army tests were drawn from a certain type of civilization. Those parts of Europe which came nearest to that type of civilization naturally did better in the test. If these Europeans could retaliate upon us and apply some of their average operations to our natives, they might prove the urban, industrial population of our country lacking "intelligence" because, by Mediterranean and Alpine tests, it acted like a moron. No, Dr. Brigham cannot rewrite the facts of history on the basis of forty-five minutes' work of a few European peasants. Dr. Kohs and the proper interpretation of the facts furnish an antidote to the Doctor from Princeton. If Nordic is superior, it is superior in a peculiarly Nordic test, and it remains to be shown that such a Nordic operation is the real and only intelligence.

Much, too, could be said about what is called

the normal curve of distribution, which is the last test of all mental tests. The normal curve is only a mathematical and graphic statement of the law of averages, of means, medians and modes, and its use is subject to all the cautions which are to be used for statistics. That part of the volume, *Psychological Examining in the U. S. Army,* awakens the most misgivings where by various assumptions and by elaborate equations the results of examinations are ironed down to conform to the normal curve of probabilities. It would appear better to reject a test entirely as not being normal if it does not produce normal results. Some years ago a Harvard instructor reported certain tests in which private high schools passed over 90% and public high schools about 10%. Such a test should be rejected at once. If I were to test students by a hundred-yards dash in ten seconds, the plotted curve would be frightfully skewed, and the regression formulas would be in vain. The amputations and regressions and assumptions required in the Army results to establish what is called the combined scale leave a reader somewhat sceptical of results which require such manipulations. "Well-merited criticism," says Dr. Kohs (*Intelligence Measurement,* p. 100), "has already been launched against our blind utilization of correlation formulæ and of transmutation tables and our incessant worship of the normal curve fetish."

It might appear from all thus far said that I disapprove of and reject all mental tests and mental testers, but that is not so. To develop

the advantages of the tests was not my purpose, but rather to seek guidance in right philosophy. The books I have quoted and the earlier and more enthusiastic works of Terman will stress sufficiently the good points of mental tests. I may briefly catalog a few benefits.

I. The concentrated and intense study of many minds focussing upon examinations has helped and will help all teachers. Examinations are unreliable at best, but mental tests have called attention to defects which can be removed and to improvements which can be introduced.

II. Group examinations, so necessary in the enormously increased classes of our schools, have been studied with good results and will help the burdened teacher. The normal curve is a guide for large numbers.

III. Mental tests have thrown a much needed emphasis upon performance rather than upon passive acquisition. They are bound to result in more drill, in more frequent expression. Mental tests, being an appraisal of art, that is, of the power to act, rather than a search into the mind's science or accumulated information, will induce teachers to cultivate in their pupils the art of expression.

IV. Mental tests are largely language tests, and for that reason they are to be welcomed. The operation of using language and the habit of its expression has always been the test of mind. In fact, if language is taken in its widest meaning, language is the only way to reach the mind, because only through mental actions can mind

be rated and mental action is expression or language. Besides language is the only way by which the tester reaches the mind to be tested.

V. It is good to know how a class stands with respect to the average, especially in definite, easily rated operations, like spelling, reading, arithmetic and the like. Though we must be cautious in applying averages to individuals or predestining them to eternal stupidity because of an average, yet if a whole school or a whole class fails in a normal test, something is wrong and it should be set right.

Finally, mental tests and the study of correlations between sense and mind and between hand and mind have helped to put to an end or to keep in bounds the manual training fad and the sense-development fad of recent years. Perhaps the methods or the principles of many mental testers may seem to be materialistic, yet on the whole their standard performances have thrown the emphasis on the supra-sensual powers. They labor to a great extent under the fallacy that morality is the same as mentality, they ignore or leave out of reckoning man's free will, and although they do not mention the word soul, yet they are nearer to it than the experimental psychologists who preceded them, because they are investigating not the operations of the body, but of man's free, immaterial and immortal spirit.

IS THE I. Q. A CONSTANT?

A TEACHER needs optimism more than does any other person in the world. A doctor has a limited number of patients and has a large supply of reliable and well-tested excuses for failure. A preacher has not his audience daily before him and can easily excuse lack of results. But a teacher has present every day and for the larger part of the year, a varied assortment of human beings, intellectually ill and mostly rebellious to mental hygiene and to doses of knowledge —and a teacher's already slender supply of excuses now threatens to grow more slender.

In his *Determinism in Education,* Dr. William C. Bagley has taken a vigorous stand against all Galtonians and mental Mendelians who assert that every student's native capacity is as definitely hereditary as the red in the hair. The mental testers have reared an Ossa of statistics, but Dr. Bagley plants firmly on the testers' bristling crest a higher and huger Pelion of statistics. And so there goes by the board one fine excuse of long-established efficacy to the teacher. The teacher's ready relief has always been, "Poets, you know, are born"; or in the more scientific terminology of our time, "If you are born with a moronic I. Q., a poor persecuted teacher cannot be blamed."

Now, however, Dr. Bagley intervenes and holds that the I. Q. is not a constant. Yet even if that flattering unction can no more be laid to magisterial souls, who knows but what they shall be all the more optimistic, even after the loss of one good excuse? "Once a moron, always a moron," is not, after all, a very heartening slogan for a teacher.

The servants in the parable were endowed by their master with different initial capital. One had five talents, another two, another but one talent. They were praised or blamed on auditing-day, not for the amount of their capital, but for the yield on their investments. The dispute between great mental testers like Professors Terman and Thorndike, and Dr. Bagley, who opposes them, has to do with the question whether the initial talents of the human mind are limited and unchangeable. The mental testers seem to hold that native capacity is initially of a definite potentiality which cannot be increased although that potentiality may be fully realized. That is to say, your talents may draw 100 per cent interet, but you cannot increase your capital and you cannot compound your interest. A natural corollary to this position is that intellectual development ceases at a certain period. In the *Catholic Educational Review* for May, 1926, Dr. T. F. Foran examines all this evidence adduced so far to establish this corollary, and brings in a verdict of not proven. Modern Catos may still start at ripe old age to master Greek without being discouraged by the prospect that their

talents have already been realized to their full capacity.

Dr. Bagley attacks this common assumption of testers that initial capacity is a constant. He calls the initial talent or intelligence level, the vertical; and the investment or development, the horizontal; and asserts against his opponents that mental levels may develop vertically as well as horizontally, and even that horizontal development produces vertical development. "It is now clear," he says, arguing from half-a-dozen different investigations, "that horizontal growth may bring about a significant access of vertical growth."

The opponents then have locked horns, and while the hereditarians are amassing statistics and carrying on tests to overcome Dr. Bagley, as they undoubtedly are trying to do, it would help to have both sides define their terms and search into their assumed first principles. "General intelligence is a very vague term, differently defined by all authorities read during ten years by the present writer—from Binet and Simon down to Dr. Bagley, whose definition, "the ability to control behavior in the light of experience," is not very definite and introduces moral elements which are of the highest value but are not commonly styled intellectual. Is it certain, too, that control of behavior correlates always with intellectual power?

The definition stated in the army tests is the most honest: "By intelligence we mean the ability that manifests itself quantitatively in a set of consistent scores in all types of examination upon

which our data is based." That is honest, because the only thing that is tested in any test is some operation, and that operation is rated by correlation with the ability of others to do the same operation. No one measures intelligence in any literal sense, but in reality he rates operations and infers to intelligence. You rate what you rate, and determine nothing directly but your rating; and if you proceed to draw inferences, you may go wrong in many different ways. "Rating" is in reality a more accurate term than measuring, because an operation cannot be measured. It has no halves or quarters, and is therefore not subject to measurement in its strict sense. You can merely say an operation is better or worse than another operation; you cannot say that it is half or quarter of an operation.

Now besides a clear notion of what is rated—namely, an operation—testers, or better, theorizers on tests should remember what is obvious: that the more elements enter into the operation, the more unreliable is the rating, and the more uncertain is the interpretation of the tested operation. Spelling and simple mathematical operations have an indeterminable amount of constituent elements, cooperating for their performance. The expert physicist may tell us all the factors that intervene in radio-transmission, between the voice that leaves the lips for the microphone, and the sound that issues from the amplifying horn. No analysis of the issuing voice will reveal the countless links in the radio chain. If the physiological and psychological factors are

numerous in a simple operation like spelling, what will they be in English composition? That is a highly complex operation, and to establish a scale of rating is extremely difficult. Now go further with the testers and rate not only the operation, but the various known and unknown elements combining in the operation; and go still further beyond those elements to their causes in heredity, in environment, in formal schooling. You will then realize the Alps which mental testers must scale with the courage of Hannibal. They indeed scale—but do they find Italy?

Finally, as a preliminary to decide this controversy and to estimate the initial capital, the disputants should select the children immediately upon birth, subject them to exactly the same environment, and when they arrive at the Simon-Binet ages, give them the same tests, making sure that all the children are the same in everything except the one operation subject to test. Even then, Freud would hold there was some prenatal schooling. The *tabula rasa,* or clean slate, which the anti-Platonists describe as the first stage of education, is difficult to get at, and more difficult to analyze in order to determine which slate has the best qualities. Is the *tabula rasa* of child A of the same nature and excellence as the *tabula rasa* of child B?

Despite all these handicaps, the measuring of intellects has been carried on, and the intelligence quotient, or the ratio between years and intelligence, has been confidently announced for thousands of children. It is possible now to have

your I. Q. marked on the frame of your door, and have your intellectual vertical lead-penciled on the line of your physical vertical. Your horizontal, both mental and corporal, will be found to vary more freely. The vertical, if you wish to be more accurate, will be your Simon-Binet-Standford-Revision intelligence, or your Alpha intelligence or your Beta intelligence.

Dr. Bagley's authorities have been examining into this so-called native intelligence, and have been telling us strange stories about it. Burt finds that the Simon-Binet "native intelligence" is only one-third real native intelligence, and the rest trained intelligence—mostly trained in school. Willard agrees with Burt, estimating that half of the "native intelligence" is due to schooling. White found the "silent reading intelligence" improved by training, and concluded on the determinist hypothesis that silent reading does not measure native intelligence—and it does not, of course, if native intelligence is a fixed quantity. When a test goes against the testers, they don't change their theory; they give up the test. Graves reports that coaching improved "native intelligence." Wooley asserts that, when placed in a superior environment, the "native intelligence" is decidedly uplifted. Vischer, studying the contents of *Who's Who,* devised a who's-who test, which ascribes environment, especially that of the clergyman's home, as the best producer of "native intelligence." Gordon, the English school-inspector, makes the still more astonishing assertion that the Simon-Binet-Standford-Revision

"native intelligence" actually decreases, and the members of the same family have less "native intelligence" at twenty-two than they had at four. Gordon asks the very sensible question: "Is there any mental development apart from mental effort?" And all true Aristotelians who hold that education is a habit formed in a power by action, will answer with Gordon in the negative. Clark asserts that "native intelligence" is better if information is more extensive. Dr. Bagley is triumphant over this conclusion, which proves for him that the horizontal growth turns into vertical—for babes, of course, are not born with up-to-date information. "Native intelligence" is therefore variable in every way. It is shown not to be wholly native; it is increased; it is decreased; by training it approximates in ability a better intelligence; it is changed by information to formation.

Assuming that these several investigations are accurate and true, Dr. Bagley does well to hearten all teachers and to inspire them with the hope of bettering even morons. It is certain, divinely certain, that by taking thought no one can add to his stature, because the physical vertical, happily for us all, is under control of glands beyond the power of thought. But we can, by taking thought, add to our mental stature. Living substance is more plastic than dead matter, and the very texture of muscle and flesh can be improved by use and care. How much more plastic is the substance of the mind, and to what marvelous levels of intelligence it can be raised! Even

were the internal handicaps to thought as serious as was the loss of sight and hearing to Helen Keller, may not devoted teaching find a way into a resurrection and development of the mental life? Dr. Bagley, in his hopeful pronouncements, would seem to assume so. The educational world needs his insistent declaration that intellectual levels may be lifted; that Alpha, Beta, Simon-Binet or any other test has no infallibility to predestine minds to loss of intellectual salvation.

FALSE INFERENCES FROM MENTAL TESTS

DURING the war 1,727,000 men were subjected to uniform standardized tests, devised to measure their general intelligence. This was an experiment in education, quite exceptional, and not likely to be repeated soon. The results of this gigantic examination have been published, and inquiring minds are analyzing and combining the statistics and deducing various unfounded and fantastic conclusions.

Now, if there is one thing which experts in education have been for nearly a generation driving into our ears, it is the cry, "You train what you train; there is no transfer of training." The retort is obvious: "You test what you test; there is no transfer of testing." Both positions are extreme, and a more careful study shows that the statements need modification.

The extravagant inferences drawn from mental tests make it profitable to determine just exactly what these tests are; to separate fact from inference, and to subject all inferences to the rules of right reasoning. If you do not conform to the standard or average in your clothes and shoes, the fact is one thing, but it is another and a quite distinct thing to make inferences, some of which

may be trivial and easily explicable, some sensible and rightly founded, some illogical, alarming and horrifying.

Now what are mental tests of which the educational world hears so much today? Take one of the Army tests which the drafted men took. Test 4, the synonym-antonym test, reads as follows: "If the two words of a pair mean the same or nearly the same, draw a line under *same.* If they mean the opposite or nearly the opposite, draw a line under *opposite.* If you cannot be sure, guess. The two samples are already marked as they should be." Then on the left hand of the page, after the two samples mentioned, are printed forty pairs of words, and on the right hand margin of the page the words, *same* and *opposite,* are printed on a line with each pair. The pairs are graded in difficulty from *wet-dry* to *encomium-eulogy.*

Consider just exactly what is tested by test 4. Analyze and list all the actions that are performed. First, all the examined must understand the spoken and the printed word of the directions. This understanding involves a number of operations of eye, ear, imagination, apprehension, judgment and reasoning. These operations are preliminary. In the test itself, with the exception of hearing, the same operations are repeated with each pair of words whose likeness or unlikeness must be concluded and affirmed after the separate apprehension of each word. Besides, these lists of words suppose a great deal of reading. In three such lists one will find scarcely more than a dozen words used in the ordinary conversation

even of educated men, and most are rarely used in the narrative English of our newspapers.

After such a list of synonyms and antonyms is drawn up, the next step in devising a test is to standardize it. The test is given to many groups of varying ages and of different grades of intelligence, and from these trial tests an average is struck in every case. Finally a scale is made out listing these averages. When you step on a public scales to weigh yourself, you will find often a standardized list of weights according to size and sex. The weighing is the test, and your rating is the ratio of your correspondence with the average weight of persons of your size and sex. To say one has the weight of a man six feet tall is a parallel statement to that which asserts that one has a six-year-old mind.

The most important thing, therefore, to remember about mental tests or intellectual tests or psychological tests (it is a test of you which word you use) is that they are nothing more or less than measurements in terms of the average, and measurements of that thing, and that thing only, which is tested. You test what you test, and you scale your test according to the average of a certain number at a certain time and of a certain place. If I weigh just as much as the scale on the weighing machine states for my sex and size, I do not change the fact by saying that my avoirdupois quotient is 100. If I call my ratio to the average intelligence an intellectual quotient, or put it into figures, I do not change the simple fact that I perform a certain operation, complex or simple,

and my ability to perform that operation is rated in accordance with the average ability of others.

The claim is made in *Army Mental Tests* (p. 51) that "the rating is absolute rather than relative." This claim cannot stand. The relativity is indeed not restricted to one class or one company, but it is certainly restricted to the circle of individuals upon whom the test has been tried for standardizing. The water cannot run higher than its source. Besides, what does the constant revision of various tests imply? That the tests are not constant or absolute and do vary, and must vary, according to the number and variety of individuals upon whom they have been tried. You may devise an absolute standard for chemical elements, which are the same everywhere, but human beings are not the same everywhere. Even chemicals must be tested under the same physical conditions of temperature and pressure.

Such is the fact of mental tests. What are some of the many inferences drawn from them? The commonest inference discussed in the last chapter is that everyone has from birth a fixed, definite mental capacity, and that he can no more alter that capacity through life than he can change the color of his eyes, inherited from his progenitors. This is a tremendous inference, now widely held and fraught with very serious consequences to education. Is it a legitimate inference? Most decidedly, it is not. Again and again, the authors of *Army Mental Tests* give warning that mental tests are not moral tests or deportment tests, and they are wise and right in so doing. The increase

and development of mental power is largely a question of will, and mental tests do not measure will and cannot measure will any more than mental tests can measure sight or hearing.

Take the synonym test. Suppose my mental age by that test is thirteen, and suppose it remains thirteen next week or next year or five years from now. Is the only reason for such a condition that I have a power to master so many synonyms and no more? That would seem absurd. The true reason may be that I leave school at that age; I read nothing but the newspapers; I converse with people of the same education as myself; I do not exert my will to improve my power over synonyms.

The repulsive Infant Damnation Theory of rigid Calvinism was rejected by one Presbyterian minister with the assertion that, if all infants are predestined, they are predestined to be saved. No teacher should face a class with any mental test number hovering over the heads of the students, but rather with the hopeful halo that every soul there is born to be whatever it wills to be, and tests of the mind have no power of eternal condemnation over the will.

Another inference drawn from mental tests, especially from those given to the army, tries to establish mental inferiority for whole groups. A writer in the *Atlantic* infers dire calamity to democracy in America from these tests. "Some data of quite appalling significance are assembled," says Cornelia James Cannon. "The white draft, as a whole, had 22 per cent of inferior

men; those of the draft who were born in Poland had 70 per cent; in Italy, 63; in Russia, 60. Of all the foreign-born, 46 per cent were of this very low grade of intelligence, with an almost negligible number of superior individuals."

Can we accept these conclusions without question? The very size of the percentages should make us pause in our inferences. Go back to the tests and see what they really are. They are devised to be tests of operations only, excluding information, but they do not and cannot exclude all information. The mind must operate upon truth, and in the case of the mental tests the truth is not inborn. It is acquired in school or out of it. Most of the information or truth making up the Binet tests and their various revisions comes from out of school life. A larger part of the army tests is drawn from information usually gained in school.

The tests, therefore, are an examination in the current information of a certain definite time and place of American life. When such tests, therefore, are applied to other places, they are misleading and fallacious. What would people born and raised in Poland or England or Ireland make of such a test as this: "In each sentence draw a line under one of the four words which makes the truest sentence. Food products are make by Smith & Wesson. Swift & Co. W. L. Douglas B. T. Babbitt. Or, Bud Fisher is famous as an actor author baseball player comic artist"? These are two out of forty like questions in test 8 of the Army Tests, given, too, without any

commas or hyphens. It is true that test 8 is specifically an information test, but all tests call for some information which persons of another place do not possess. Tests are simply averaged performances of persons in one set of circumstances and are inevitably fallacious when applied to another set of circumstances.

Besides, all tests demand language, spoken or printed, as a necessary condition. Even pictures and pantomime are a kind of language. Now anyone who has written questions for examinations knows very well that it is a very difficult thing to avoid all ambiguity. This is true where all live in the same part of a country. When, therefore, the examined come from widely separated parts or from another country, the inferences are necessarily false unless this point is taken into account. Poles, Italians, English, Irish, should be measured by tests standardized for their countries and given by persons who know the language and customs of each country.

There must be some such explanation of these figures, or we are driven to the absurd conclusion that living in America for one or two generations enlarges the mental capacity by 50 per cent. The whole draft of the army produced 22 per cent inferior men, and the foreign-born produced 46 per cent. We owe a duty to the universe to welcome the foreign-born, knowing that our magnificent environment will within fifty years enable all their descendants to inherit a fixed capacity double that of their benighted forefathers.

There are, be it said in conclusion, good and

solid inferences from mental tests. They are, however, not "open sesames" or magic lamps. Granting that they are conducted with proper conditions and with accuracy, they simply tell how one mind in a certain operation or group of operations works when compared with a number of other minds performing the same operation. The ratio of the tested to a certain average is at best the sole fact. All else is inference, legitimate or otherwise.

THE MENTAL TESTS OF CIVILIZATION

IF mental tests are nothing more than an attempt to measure how individuals have responded to the every-day teaching of life, how they stand with respect to the intellectual level of their age, then the classics which embody the teaching of the world's life, which mark for us the flood-tide of man's intellect for all ages, should be and are the mental tests of civilization. "Literature," declares Newman in the *Idea of a University*, "stands related to man as science to nature; it is his history. Man is composed of body and soul; he thinks and he acts; he has appetites, passions, affections, motives, designs. . . . All this constitutes his life; of all this literature is the expression; so that literature is to man in some sort what autobiography is to the individual—it is his life and remains." (p. 227.)

Some have gone so far as to assert that colleges do not develop the student, but that they are sieves by which the talented are separated from the untalented. Colleges do indeed sift the chaff from the wheat. It would, however, be a paradox to say that they do only that. Those who make the assertion believe that everyone has from birth a limited perfectibility of mind. Their fallacy consists in taking no account of free-will and in

ignoring the fact that thoughts do not grow Topsy-like, but must be exercised in order to acquire for the mind that habitual operation which is the evidence of the mind's excellence or art.

Classics, therefore, which enshrine the life of man, educate positively by demanding the exercise of man's mental, moral and emotional powers, all of which are embodied in the best literature. Science mirrors nature; literature mirrors man; and to be subjected to its artistic influences is to be educated by the best thoughts of the best minds.

When the Gary schools were tested by the General Education Board, it was found that in language the pupils were inferior to the average. Instead of admitting that vocational training divided the energies and took from training of the mind, the examiners advocated trade tests, or vocational tests. Why are they wrong? Why do educators demand mental tests for trades, but not trade tests for the mind? The reason is simply this, that manual training, or special training, or vocational training, is not of itself mental training. An animal may be trained to run certain machines because no intellect is required. A succession of pictures in the imaginative memory associated with a series of operations may be repeated often enough until the association becomes mechanical and automatic, and you have a monkey smoking a cigar or grinding an organ. No intellect is called for; no powers of generalization are used.

Take, however, the test known as number-

series completion. No trade or vocation would enable one to pass the test. The test puts a series of figures in a certain relation, say 2, 4, 6, 8, and asks for an extension of the series. The mind and the mind alone can apprehend the relation between the units of the series, and from that generalization extend the series, using a mental process which combines apprehension, abstraction, predication and reasoning. Now compare the words of Newman:

> This process of training by which the intellect, instead of being formed or sacrificed to some particular or accidental purpose, some specific trade or profession, or study or science, is disciplined for its own sake, for the perception of its own proper object and for its own highest culture, is called liberal education. (p. 152.) . . . You see then, there are two methods of education; the end of one is to be philosophical, and the other to be mechanical; the one rises towards general ideas, the other is exhausted upon what is particular and external. (p. 112.) . . . I say that knowledge in proportion as it tends more and more to be particular ceases to be knowledge. (*ibid.*)

The army tests showed this same truth in a striking form. The results of the tests were arranged according to occupations. The lists will be found in *Army Mental Tests* (Holt, p. 198), and in *Army Mental Tests,* a pamphlet issued from Washington in 1918 (p. 23) and

in *Psychological Examining in the U. S. Army.* The authors of the first work, published in 1920, omit from their list army chaplains, who are second highest on the Washington list. Other omissions are Y. M. C. A. secretaries, who were fourth, and secretaries and typists, who were seventh. "In order of diminishing intelligence," say the authors of *Army Mental Tests,* "the occupational groups may be classified thus: professions, clerical occupations, trades, partially skilled labor and unskilled labor."

If trades educate the mind, why should this significant difference manifest itself? The plain truth is that the only way to better the mind is to use the mind, and manual training, vocational training, not only divide the energies, distracting from mental pursuits, but they also develop positively, directly and chiefly trade skill. Incidentally, there is some mental training because the mind is used slightly in the acquired automatism of mechanical skill. Language, which largely resists automatism; language, which is the product of the mind, the embodiment of mind, the necessary condition of mental expression, is directly and immediately an exercise of the mind. The best literature is the best language, and the consensus of civilization is that the best literatures are the classic literatures of Greece and Rome, the perfected instruments of a liberal education, and the age-long tests of civilization.

MENTAL TESTS AND LIBERAL EDUCATION

THE current ideas in many quarters about mental tests are almost as naïve and as uninformed about the laws of thought as Topsy was about the processes of life. Topsy "had no father or mother; she just grew." Thoughts in like manner are supposed to be not conceived; they just grow. Mental tests are in reality nothing else but examinations in the school of life. The mind must work on truth, and, as the truth is not inborn, it is acquired from the environment. The tester comes in and finds that a certain operation, like telling time, is mastered perfectly in a certain region at a certain age. He asks another child to tell time. If the child does so at earlier than the average age, it has a high intellectual quotient, which quotient is the ratio between the child's age and the average age of the expert time-tellers. If the child is not able to tell time until several years after the average, his intellectual quotient or ratio is less than unity or the average. He may even be classed as a moron, which is a polite Greek term for blockhead.

Recognize tests for what they really are, and you will admit their good points without elevating them into fads, or fondly deeming them equal to

the solution of all difficulties. An analysis of the tests will show just what they are and will show their connection with a liberal education, a connection rather surprising perhaps for one to assert.

Mental tests are examinations of general intelligence. It is gratifying to true educators, although it must be not a little disheartening to the opponents of formal discipline, to find mental tests not only asserting the existence of general intelligence, but actually attempting to measure it in terms of the average. Liberal education has always held that as the body has an excellent general condition, called health, and the will an excellent general condition, called virtue or character, so the mind has an excellent general condition, which has been called culture. Now this culture finds its counterpart for early life in the "intellectual quotient" or "general intelligence" measured by mental tests. Newman's *Idea of a University* is the best exposition in English of the philosophy of a liberal education. As the Jesuit "Plans of Studies" (*"Ratio Studiorum"*) generalized the traditional education of Europe at the end of the sixteenth century, so Newman generalized the theory of the same education at the beginning of the nineteenth century. Throughout his lectures, Newman continually asserts the parallel existing between physical, moral and mental well-being.

Mental tests are chiefly tests of operation. Information is necessarily limited in the tests for children and in all tests the emphasis is purposely

put upon operations rather than upon information. From the proper functioning of the mind we conclude to its general condition, as we conclude to good health and good character from healthy functioning of body and will. *"Operatio est perfectio esse,"* the scholastic axiom asserted; if a thing work well, it is well. The philosophy of Newman and the practise of the Jesuit *Ratio Studiorum* are at one here with mental tests. The Jesuit "Plan" makes perfect expression of the mind operating through language, the end of every class, culminating in the eloquent expression of rhetoric as the highest point of the lower schools. Newman describes the same ideal, which might be applied in detail to the Jesuit system:

> To open the mind, to correct it, to refine it, to enable it to know and to digest, master, rule and use its knowledge, to give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address, eloquent expression, is an object as intelligible (for here we are inquiring, not what the object of a liberal education is worth, nor what use the Church makes of it, but what it is in itself), I say, an object as intelligible as the cultivation of virtue, while, at the same time, it is absolutely distinct from it. (p. 122.)

Mental tests are not information tests. The mental tests boast that they make all schooling in them impossible. They exclude, as far as they

can, mere information, and where information is included, the tests demand not its possession and simple reproduction, but its proper use. Erudition has been so completely subordinated in the *Ratio Studiorum* to the mastery of expression that it has been made a matter of reproach against the Jesuit "Plan," and even its defenders, prejudiced by the scientific obsession of recent times, have been unduly apologetic, forgetting, what the mental tests clearly demonstrate, that one learns to do by doing.

> A great memory [declares Newman], does not make a philosopher any more than a dictionary can be called a grammar. There are men who embrace in their minds a vast multitude of ideas, but with little sensibility of their relations towards each other. . . . If they are nothing more than well-read men, or men of information, they have not what specifically deserves the name of culture of mind, or fulfils the type of liberal education. (p. 135.)

Mental tests attempt to measure one's powers. They search into one's art, rather than into one's science. This is putting in another way what has just been said. Art is taken here in its wide sense, as an operative habit, the power of doing acquired by constant repetition of acts. Perhaps these tests may have the effect of starting a reaction against the domination of science in modern schools. The education of acts has been largely

replaced by the education of facts. It was not so in the liberal education of the *Ratio Studiorum* and other systems, where the powers of the mind were exercised in constant drill until they had acquired the habit of functioning properly. In the case of mental tests, life and to some extent school, give the drill and make the mind work so well that one or two specimens of the mind's operations are taken as evidences of the habit or art. The only rational justification for considering a test the measure of intelligence is the possession of an art or habit in the mind, which enables one to argue to such a power from its operation and to assert the persistence of that power. Liberal education has justified itself on the same basis. It has taught speaking by speaking, and writing by writing, and arts by arts.

> The classics [declares Newman], and the subjects of thought and the studies to which they give rise, or, to use the term most to our present purpose, the arts, have ever, on the whole, been instruments of education which the civilized *orbis terrarum* has adopted. (p. 256.)

Mental tests are language tests. It might be argued that they are exclusively and wholly language tests. The only way in which mental operations can be measured by another is through the medium of language; the only way any mind can express itself is by language. Gesture, pantomime, symbols, pictures, are a kind of language.

The examiner must always use language in order to convey his thought to another, and even in the strictest scientific and technical language it is difficult to exclude the personal equation because terms are colored by experience and are always changing. As mental tests are an examination in the schooling of life and of environment, language entered into the acquisition of even the simplest ideas; with language it was that the mind operated, by language the test is administered, through language the candidate expresses himself. The tests have devised many brief forms of expression, a kind of shorthand, but underlining a word or making a cross are terms which have a definite and explained meaning and are just as much a language as if that entire meaning were written or spoken instead of being expressed in a conventional sign invented for the examination.

Now it is remarkable, though quite natural, that liberal education and traditional education should be so fully justified in its practises and theory by this latest triumph of scientific pedagogy. By actual tests, Professor Starch (*Educational Psychology*), found that there was so high a percentage of correlation between the vocabulary test and other tests that he looks forward to the time when a simple language test like that of vocabulary will furnish an adequate index to the mind's operations.

All this is most interesting when it is remembered that the *Ratio Studiorum* and other traditional systems have been condemned as too humanistic, as being a study of mere words. It

was left to science, to philology, to resolve language into a study of words. Humanism never took words away from the human soul, never robbed them of life and feeling. In traditional education language gave the name to the classes, language predominated in the class work, expression in language was and is the guarantee of an educated, that is, properly working mind.

> The simple question to be considered [writes Newman], is how best to strengthen, refine and enrich the intellectual powers. The perusal of the poets, historians and philosophers of Greece and Rome will accomplish this as long experience has shown; but that the study of the experimental sciences will do the like is proved as yet by no experience whatever. (p. 263.)

PHILOSOPHY OF VOCATIONAL TRAINING

1. *The Wrong Solution*

WITH Catholics, vocation is a sacred word. Vocation is the call of God, the knocking at the door, the voice to which no heart should harden; it is divine gravitation, the embracing pressure of heavenly atmosphere; in a word, vocation is grace with all its wonders and mysteries. When therefore anything is labeled vocational, Catholics stand to attention. Vocational training, however, in the recent acceptance of the term, is something of a false alarm. You may put on your hats; the flag is not passing by. Education like everything else would make fine birds by bedecking itself with fine feathers. We educators are trying to sell our wares as others are trying to sell theirs, and we resort to the wiles and ways of the advertiser, discarding meaner words and selecting the finest appellation with which to adorn our line of goods.

For myself I do not object so much to have occupations designated vocations. Occupations and trades are noble, useful, divine things, and Christianity, which is the truest democracy, has never forgotten that Peter was a fisherman and Paul a tent-maker and Christ a carpenter. In the

humblest occupations the Christian Church has formed the highest officials, and it would object and does seriously protest if the trades and occupations, however good and useful, should be vocations in any limited or final sense. Christian education will not hide a single talent in a napkin or bury it in the ground or pigeon-hole it in any early trade, where it may not realize its hundred-per-cent interest. Who knows where the voice of Christ may call, who can infallibly measure a child's intellectual capacity, and supposing such a measure possible, who can measure the capacity of a strong will, which can do with a single talent what weakness does not do with five? Even if you are already in a trade, Christianity tells you you may still be a Peter, a Paul, or a Christ.

You may be surprised at my taking so lofty a tone when speaking of vocational training, but I hope to show that in vocational training improperly understood and practised lies a serious menace to true education and to true vocation. Let us remove at the outset some misconceptions repeating what has been said elsewhere. First, everyone who is sensible admits the usefulness and the necessity of trades; secondly, for defectives, physical, moral or mental, for those unhappily crippled, for criminals young or old; for the weak-minded or weak-willed in institutions, an enforced trade is honorable and often obligatory. Again I do not intend to discuss trade schools or vocational training for those who are beyond school age and already at work. For

them improvement in their calling or preparation for higher calling, carried on by various private and public organizations, is deserving of every encouragement. But here is the point I wish to discuss, and please mark it well and keep it clear: Should we, I ask, have trade schools for youths from twelve to eighteen? In that question there are two others: first, should we teach trades at all to children during these ages, and second, if in some cases it is advisable to teach trades during the period of secondary education, should the teaching be done in the junior and senior high schools? I venture to answer all these questions explicitly in the negative. We should not have trade schools as part of secondary education, and if trades are to be learned at any time after the primary and before the end of high school, the place for learning such trades is not the school.

What are the reasons for taking so strong a stand against the teaching of trades to the young in schools? The reasons are, I think, many and cogent. First of all these schools cannot possibly teach all trades, and therefore it is unjust to apply the money of all the people to subsidize a few trades by furnishing them with trained apprentices. There may be certain towns or cities where there are but a few basic industries. In such places trade schools may possibly have an appearance of justice, but these places are rare. The exact number of manufacturing industries will be found listed in such works as *The Census of Manufactures,* published by the Federal Government. Have you a trade school in your city

or town? Make this simple experiment. Compare the trades of your place, found readily in telephone or city directory, with the trades taught in the schools. Add to the manufacturing trades which transform raw material, those trades which produce raw material and the other trades which distribute the manufactured articles. Add to these the multiplicity of businesses and of professions all of which constitute our complex civilization, and you will see the injustice of subsidizing one-half of one per cent of our nation's numerous vocations.

In the next place trade schools are financially extravagant as well as politically unjust. A multiplicity of subjects calls for numerous teachers. Trade schools must always have the latest equipment and the best machinery. Trade schools demand and consume the finest materials. Trade schools we know cost far more than science or manual training schools. In the old time schools the equipment was one-fifth of the teaching cost; in the modern types of high schools where machines are used, equipment far surpasses the teaching cost. The point needs no elaboration. The trade schools are and must be extremely costly. The teachers must be as numerous as the trades. I pass over the fact that good mechanics are not always good teachers, that the schools do not get the best mechanics. In a following chapter I show what a sinecure teaching in a trade-school is and must be from the large number of trades and small number of candidates for each trade.

Besides being practically unjust by subsidizing a few trades and being financially extravagant by having a relatively large number of teachers teach a relatively small number of pupils with high-priced equipment, trade schools are not best even for the trades they attempt to teach. In 1902 France gave up the traditional secondary education imposed upon all and introduced different types of high school courses, the academic or the classical, the scientific, and the modern language. After twenty years experience it was found that the traditional or classical course produced far better scientists and better scholars in languages and in the vernacular than the course which gave special attention to science and to the vernacular. The objection was made by investigators that "even the so-called practical courses, for example, in the sciences, that were introduced by the reform of 1902 were bookish and academic and but little related to the present demands." (*The Classics in England, France and Germany,* p. 97—Princeton University Press.) What is the reason of this? One reason is that experimental science is changing and advancing and must always be so. The chemistry and physics I learned through simple equipment thirty years ago are antiquated. The high-priced equipment of today illustrates for the pupil in the grades facts that we never dreamt of in college. My course in chemistry and physics survives in me today only in some general habits of verification, of experimentation, of inference. The trades too in my lifetime have been revolutionized. I talk

a foreign language when I speak to you of sickles and cradle-scythes and flails and winnowing-fans which I saw used as a boy. The carpenters, the masons, the wood-choppers, the wagon-makers, the hand-spinner and weaver, the cabinet-maker, the dairy maid, all these have gone within the space of one lifetime. The trades taught in the schools today will be bookish tomorrow as the sciences were in France.

Much more so than in Europe will all trade schools in America be bookish and impractical. We in America are not a conservative but an experimental people. We waste much because we are continually improving. Art, literature, pure science like religion and morals, do not change overnight because they are based upon unchanging truths. Experimental sciences do change and must change; trades follow discoveries and must follow them. Think of steam, of electricity, of the internal-combustion engine, of radio-activity, of automobiles, of motors, which discarded a host of trades, modified a host of other trades and created a host of new trades. Trade schools can never keep up-to-date. Had there been a trade school when I was a boy my father would have tried perhaps to make me what he himself was at first, a wagon-builder. What a practical and useful trade that would be for one today! "Listen," said a father recently to his son, "to these great words of Emerson: 'Hitch your wagon to a star.'" "Father," asked the boy, "what is a wagon?" It is not good for the trades themselves to stereotype apprentices in methods

and machinery that are antiquated before the pupils leave school.

Another reason why trade schools are bad for the trades is that they are used as dumping grounds for indolent students or for intellectually deficient students. In Brooklyn the high school reported a large number of failures. The indignant principal declared that those failures should all have been in the trade schools. In New England and I think elsewhere, the high school student often starts off in the classical high. If weak in will or mind, he (I use "he" for chivalrous reasons) goes to commercial or business high. If a failure there, he gravitates to science or technical high. If a failure there, he is handed over to the trade schools. I do not know what they do with failures in trades. Perhaps we may yet establish a high school for sandwich men. But this I do know, that the poorer the pupil, the higher the cost. The ideal, therefore, towards which we seem to be aiming is to have a dozen high-priced specialists gathered around a single moron showing him how to adjust to his shoulders a precious mahogany signboard, or a gold tablet bearing a panegyric of chewing gum.

Offending against distributive justice, demanding prohibitive sums for upkeep, injuring the trades themselves by enrolling inferior pupils and by stereotyping them in antiquated methods, such are the trade schools. Finally they are educationally unsound. Trade schools pretend to be practical and to adjust students to life. We have seen that they are doomed to be late for the trades

which they are supposed to teach. A new method, a new machine, takes some time to get into schools and into books, and after reaching school it takes some years before the student graduates and arrives at the trade. By that time the trade has other methods and other machines. The Girls' Trade School in New York City finds that fashions in lamp shades and millinery are always upsetting their schedules.

Trade schools are unpractical for trades, and they are also unpractical for life. Even if they were perfect in every other respect, trade schools are defective because they do not prepare for the better and larger part of life. The hours of labor in the trades have been cut almost in half in my lifetime, and it does not call for a prophet's vision to see the time when six or four hours' work a day may produce enough for the world to live on. Educate for the longer hours, the far better hours of home and of leisure.

Think, too, that within a few years machinery which has eliminated so many trades, will perhaps eliminate all. The cobbler has gone; the cabinet-maker and carpenter have disappeared with the coming of machines. You can have your shoes cleaned by dropping a cent into a slot, and have your meal presented to you by a nickel in another slot. It calls for no wild stretch of imagination to see central power-houses studding our land, waking us up in the morning, handing us our breakfast, taking our dictation, telling us the news, picturing the world to us, entertaining us with a baseball game, a moving-picture or a play,

and lulling us to sleep with a bedtime story or sermon, and all this by the tremendous exertion of touching a button or of revolving a graduated disk. Do we need high-priced schools and teachers to teach pupils how to run machines, when during the Great War girls stepped into ammunition factories and with few lessons ran complicated machinery?

Trade schools are educational misfits. They attract the shallow attention of the thoughtless by the display of school products in pictures or in a show case. A few years ago I visited an exhibition of school work in Erie, Pa., and I saw a large admiring crowd gathered around some boxes and chairs which shone in all the glory of new varnish. Deluded parents and friends did not see that these represented a waste of precious time, a division of the energies of the child. Weeks or perhaps months were taken from the development of the mind and given to hand-work, which a machine does in a few minutes. Oh, the pity of it! In another part of the exhibition was a graded library for all school years, but nobody looked at it. The useless, harmful product of the hand was admired; the evidence, the instruments of mind and soul were passed by.

Perhaps the real reason why some educators favor early trades is the assumed impossibility of any general training. Modern psychology denies the existence of any faculties. You may possess powers, capacities, aptitudes and every other synonym which Roget's Thesaurus can furnish, but you have no faculties. The body has facul-

ties, but many modern psychologists will not admit any analogy between body and mind or will. There are no faculties because if there were, there would be a soul, and pseudo-psychologists will not admit that. They will rather deny the analogies of nature; they will prefer to overturn the principle of causation; they will not accept a soul, but will choose to believe with William James that there is "a stream of consciousness." That "stream of consciousness" is the most marvelous river in the world. It has no banks! it has no bed; it sees itself flowing without having any spectator to look at it or any place for the spectators to stand; it is always passing yet always remaining. Page Einstein and the mental gymnastics of relativity that we may master the mysterious geography of James' "stream of consciousness." There is perhaps no place in the world where false principles of philosophy work themselves out more quickly and more disastrously to a conclusion than in education.

PHILOSOPHY OF VOCATIONAL TRAINING

2. *The Right Solution*

WHAT now is the true, the ideal vocational training for the United States? As a false philosophy leads to absurdities and disaster, so a true solution of the vocational question should be based on a true philosophy. It would be idle to assert or to pretend that all the principles to be invoked are equally certain; nor can all the principles be demonstrated within the compass of a discussion like the present one. Yet most of the principles are so clearly the embodiment of common sense that any reasonable man will admit them.

We declare confidently that education is a habit. It differs from a passing disposition, like heat or cold. Neither is education a natural function, like sight or hearing or appetite. Education is an acquired habit rendering easy the operation of that faculty which has acquired the habit. It is high time that we should assert emphatically that there are faculties, unless we wish to call all men nominalists, unless we wish to deny the analogy, not of course the identity of body with mind, unless we wish to deny the principle of causation. No one holds or has held that facul-

ties are separated, individual, independent entities. Materialistic and mechanistic philosophers are close to holding such absurdities. There are therefore faculties in man, but they are united in one individual and vitalized by a personal, conscious soul.

Vital processes already specifically determined by nature are not the subject of habits. The circulation of the blood, digestion and other purely natural functions, are subject to dispositions and may be the instruments of habits; they are not the recipient of habits from education. Education has to do with operations not specifically determined by nature. The eye responds to light and color through an inherited disposition; the particular visions of the artist, the scientist, the detective, the naturalist, the scout, are habits of education imposed upon the general habit. Natural instincts are inherited powers or dispositions and not educated habits. If there were no general habits carried by general capacities or faculties there would be no education. A bird is not educated to build its nest; a man must be educated to build his house.

Are educators right in asserting that you train what you train; there is no transfer of training? They are perfectly right. Habits belong where they are developed and are of the very fabric and substance of the power in which by education they have been generated. Habits are not migratory; education does not travel around and board transiently in different faculties or powers. Modern educators are right in saying you train what

you train, but they are wrong in saying you train only particular and specific powers. Teach a boy to make a clothes-box and you train all those faculties and only those faculties which he uses in making the box. If fifty per cent of hand and thirty per cent of eye and twenty per cent of mind were engaged, then the education or habits engendered will be developed in the same ratio, but not necessarily to the full extent, because all the energy of act is not always converted into habit.

You can see now why Newman in his *Idea of a University* denies the name of education to trades. "We are instructed," he says, "in manual exercises, in the fine and useful arts" (he must be referring in these to mere technique), "in trades, in ways of business; for these are methods which have little or no effect upon the mind itself, are contained in rules committed to memory." The simple proof of Newman's statement and a good test of what is educational and what is not, is found in the process of automatism. When habits become automatic, the educational process has ceased; habit has become second-nature and approximates to instinct. Now, trade habits, the mere technique of art and of industry, reach the stage of automatism in proportion to their nearness to matter because the fewer and simpler the elements of the faculty the more quickly it reaches the perfection of habit in automatism. You can train, I have said it elsewhere, a savage to run an automobile, and there are many running them today. Perhaps patience may train an animal to run an automobile, if the operations can be stand-

ardized and repeated often enough until the series of objective acts produces a corresponding series of subjective images which succeed one another automatically.

What are the principles to guide an educator in training for a vocation? A vocation is will plus aptitude, and I venture to say that vocation is nine-tenths will and one-tenth aptitude. Will can develop the aptitude and often does. Note the wonderful object-lesson of the war when countless millions of people changed their industries overnight and by intense application mastered new trades. Consider woman, who fifty years ago was denied aptitude for almost everything except for home-work. Now who ventures to deny her aptitude for anything she wills? I believe we are born to be what we will to be, and I attribute no infallibility to Simon-Binet and their numberless followers who by their tests predestine children to intellectual damnation. The greatest part of modern education is sadly lacking in the matter of will-training. The modern psychologist denies or keeps a respectful silence about free will; that would be to admit a soul, and the soul is the bugbear of most modern philosophers.

Apply now these principles to our question. The practice of establishing trade schools for pupils at the end of six or eight years in grades is unfair, extravagant, harmful, even to the trades taught, by the stereotyping of antiquated methods, and finally the practice is educationally unsound. The ideal solution is to keep open to every student as long as possible the attainment of the

highest position in the land. Every American boy and now every American girl may ambition the presidency.

In the next place make education a matter of forming habits, especially of developing virtues of the will. As a preliminary, restore human personality to its proper place in the school. Do not spend so much money on high school machines and equipment, but multiply grade teachers and restrict subjects. Restore the class system of personal responsibility and personal influence. Let the teacher first of all be the pupil's ideal; then awaken other ideals. The virtues of school, of church, of home, are fairly well known, but the common virtues of all industry, of all business, of every profession, have not yet been so well defined and classified. The virtues of trades and professions should be known, be defined, and as young boys thrill to the Cæsars and Napoleons of history, so great speakers, great artists, great discoverers, great inventors, great scientists, should come before the young in picture, in story and in history, exemplifying the virtues of all vocations, inspiring high ideals, forming the subjects of dramas, of debates, of written and spoken compositions. Put more of the activity of mental doing into school and less of the passivity of listening. Education is a habit, and a habit is developed by repeating acts, not by rehearsing facts. A teacher should be a coach, not a lecturer.

But what about the trades? The place to teach specific, definite trades is in the trades. Give

everyone a liberal education, an education in general habits that is an education of mind through those means of education which make the mind work, through those means which do not become automatic after a few days. Such means are composition, history, mathematics, pure science, the arts, the means which educate the powers of apprehending, of judging, of reasoning, of imagination and taste, and criticism and ability to speak and write. These make the man, of all hours of the day and of all duties of the day, not simply the machine for a few hours of a few days.

Educate for the trades in the trades and throw the burden of that education on the trades themselves, which ought to bear it. Delay, however, entrance into the trades as long as possible, permit the trades then only for those who will or must enter trades. Make a survey of all the trades and occupations in your own town or city. Let teachers and school directors who know the pupils talk over the situation with each candidate. Then first, in the seventh and eighth year of the grades, let the prospective apprentices go after school or during the last hour of the school to their chosen trades to work. For the high school grade the time devoted to the trades in the case of those who wished to take up trades could be extended to half a day. During the morning all the pupils could take the same subjects and during the afternoon those not going to trades might take advanced subjects or modern languages and the like. Such plans as these have already been tried in several places that I have heard of. The

details may be worked out in accordance with local conditions. There are and will be difficulties, but they cannot be as great as the difficulties and positive evils of the present system.

What with intellectual tests based on the average of our generation, what with theories that hold that schools should be a reflex of life, what with bread and butter written in large letters over the door of all our schools, we may well ask, why have schools at all? Peruse the morning paper; then look at the pictures in the latest magazine; then have the life of a novelist of the day read with chapters from his latest novel; then adjourn to a workshop filled with modern machinery; follow up that with radio messages or moving pictures or victrola records of contemporary events. That seems to be the school we are drifting towards. No school, of course, is entirely permeated with such intense modernism or dominated by the narrow theory which thinks the latest is the best, nor is every school led astray by a false notion of practicality, demanding that the few hours of money-making in a man's life should control all education, but we are all children of our time and all prejudiced by its spirit and its fashions. The school should not and even cannot be up-to-date, because the school should give us the best of everything, and no one knows the best until it has been long tried. The school need not teach the newspaper, the modern novel, and all other ultra-modern subjects, because ten thousand agencies are teaching all that at the school door.

The Church and the school are and should be

the shrines of ideals. There should be some place not wholly tyrannized by the spirit of the day, some place that selects the best and teaches the best. It is not easy to interpret to distracted contemporaries the wisdom of the ages; it is not easy to make science and literature and art palatable to young minds; it is not easy to keep the schools free from the intense competition of money-making. Eternal vigilance is the price of much else besides liberty. Eternal vigilance is the price of health, the general education of the body; eternal vigilance is the price of character, the general education of the will; eternal vigilance is the price of judgment or wisdom, which is the general education of the mind.

THE FASHION AND FOLLY OF VOCATIONAL TRAINING

THE whole educational world is rapidly coming under the domination of vocationalism. There is a Federal Board of Vocational Education, with a full personnel of members, with executive staff, central office, regional offices, district offices, State directors, State executive officers, State supervisors. For details and names, see *Vocational Summary,* the "official organ" of Federal vocationalism. This vast machinery has grown up within a few years; it reaches everywhere, exercises a powerful control over education, and presents on a smaller scale what may be expected from a federal education bill if it is enacted. Vocational education has millions to distribute through the Smith-Hughes bill. States share in this money under certain conditions; governors and legislatures, under the urging of prospective office-holders, with the lure of patronage and salaries, rush through the required legislation, and the United States wake up one morning and find that overnight they have been systematized, officialized and vocationalized. Luxurious buildings go up. Witness the Manhattan Trade School for Girls, in New York, a ten-story building, with restaurant and kitchen on the first floor, a large

lunch room and another kitchen on the ninth floor, a gymnasium, lockers and shower baths on the tenth, and outdoor athletics on the roof. According to the glowing reports in *Vocational Summary* for October, 1919, there are four rooms for academic work out of six on the fifth floor. Academic, you see, is barely tolerated in the new era of vocationalism.

Perhaps in every large city in the country you will find the vocational machine working fast and furiously for new buildings, new courses, new taxes. Municipalities are searching for high-priced teachers to fill the new courses. What has helped recently to give impetus to the movement was the abnormal state of war, when certain industries had to be carried on with feverish excitement, and called for many workers at once. The number of disabled soldiers and the praiseworthy efforts to supply for their disabilities has afforded a patriotic motion for further grants of money to help on vocationalism. But even before the war education in trades was becoming a craze. Dr. Sharp, in the *Atlantic Monthly* for November, 1919, says, "education is going vocationally mad, vocationally bad."

What is to be thought of this great movement and what are the advantages and disadvantages connected with it? Upon what principles is this veritable revolution in education based? Let us put the question clearly at the outset: trades are necessary for the world, for some individuals they are a most useful possession, and for some they are the salvation of soul and body. Prison

statistics show a gratifying lack of industrial tradesmen among the criminals. Experience of the most limited kind proves to anyone examining one block of city or town the many benefits, physical, mental and moral, which accompany the man or woman who has a trade, a profession or a business.

There is no question, then, of the excellence of a trade; the question is whether schools should teach the trades. Dr. Elliot was largely the prophet of vocationalism, as he was of electivism. In his famous article in the *Atlantic Monthly* twenty-five years ago, Dr. Eliot propounded the theory that chipping, filing and sawing were just as good instruments of education as reading, writing and arithmetic, and in 1903, at the National Educational Association meeting in Boston, he declared:

> We have lately become convinced that accurate work with carpenters' tools, or lathe, or hammer and anvil, or violin, or plane, or pencil, or crayon, or camel's hair brush, trains well the same nerves and ganglia with which we do what is ordinarily called thinking.

From that day to his death Dr. Eliot proclaimed that if you educate the muscles you educate the mind; if you give a man good senses, you give him good sense. Under the spur of such principles, manual training grew to be the fashion, and it rapidly became the fond dream of educa-

tors that a short cut to education had been found. Teach a student a trade and you kill two birds with one stone: you make a mechanic and you make mind. It seems to be the fortune of Dr. Eliot to have his principles refuted easily and effectively, but to see them triumphant in disastrous practice. Everyone exulted in the demolishing of electivism through the brilliant discussion by Father Brosnahan of Boston College and Dean West of Princeton, with the approval of every sane educator. Yet look around you and you see electivism triumphant in most colleges. So it is with vocationalism, which is only the inevitable outcome of similar false principles. Vocationalism is easy to refute; it is opposed to common sense, sound reason and all experience, and yet vocationalism will run its disastrous race with electivism.

Of course, Dr. Eliot's idea that we think with muscles and nerves is rank materialism. That the training of the senses means training of the mind is refuted by the experience of mankind. The savage with keen eyesight, sensitive touch and acute hearing is not and never will be in the same intellectual class with the deaf, short-sighted, weazened philosopher whose senses are benumbed but whose mind is brilliant. Besides the testimony of history and experience, we have the experimental confirmation of investigators that training of sense or muscle does not train mind. (*Educational Psychology,* by Daniel Starch, Ph.D.) The correlation between mind and sense and muscle is slight indeed. The slight correlation

that is manifested may readily be explained by the fact that every act of muscle or sense is usually accompanied by an act of the mind, and it is the exercising of the mind in that accompanying act which accounts for any improvement of mind. The senses may furnish false or inaccurate information to the mind, and so impair its conclusions, but development of sense does not of itself develop mind any more than it develops digestion, the processes of which may be seriously impaired by false information, furnished by the senses. The mind is able to draw a straight conclusion, though the hand may not be able to draw a straight line. A gymnast is not always a logician, and the Indian scout with hair-trigger senses cannot detect an evident fallacy lurking in the tangled recesses of reasoning.

These are all truisms, but it is such false philosophy that Dr. Eliot has been dispensing and upon such unsound principles most of the furore for vocationalism is based. Sometimes the principles are professed as in the *Cardinal Principles of Secondary Education,* drawn up by a Committee of the National Educational Association and printed by the Federal Bureau of Education. This pamphlet, assuming as a first principle that everything educates, offers unlimited vocationalism at the seventh grade, and proposes to develop muscles, senses, mind and even will by courses in hammering, in haberdashery, in household arts, chemistry, or in any of the thousand trades. See chapter, A Revolution in the High School.

Other advocates of vocational training have a

vague idea that the only education worthy of the name is ability to run a machine. To be able to focus an idea from a nebulous state and make it stand out in clear-cut brilliancy in the mind; to be able to see and affirm and establish the connection between two ideas; to be able to compare two principles and draw thence a conclusion, in a word, to have a mind which works; all that is either impractical to the mind of the vocationalist or he subconsciously dreams and hopes that by putting bricks together a pupil will learn to put ideas together, that by transforming a part of the confusion of a brick pile into the orderly arrangement of a hod the vocationally trained youngster will rise at once to the loftiest regions of speculation.

The truth is that a trade is a knack, a mechanical automatism; it is instruction, as Newman calls it, in his *Idea of a University:* "We are instructed in manual exercises, in the fine and useful arts, in trades, and in ways of business; for these are methods which have little or no effect upon the mind itself, are contained in rules committed to memory, to tradition, or to use, and bear upon an end external to themselves. But education is a higher word; it implies an action upon our higher nature, and the formation of a character; it is something individual and permanent." Vocationalism is, therefore, based on fallacies and false principles and is a mere fashion of the hour. But the worst is yet to come.

THE INJUSTICE AND FUTILITY OF VOCATIONAL TRAINING

MOST people, when they see that something should be done look around for someone else to do it. In these days of advanced Socialism, all the work is handed over to the State. In this way the practical citizen relieves his own conscience, and reserves to himself the dear privilege of finding fault with any solution which the Government may offer. So it is with vocationalism. Trades must be learned; therefore, let the State teach them, or, best of all, let the schools do it. The great American people have so much regard for the sacred name of education, that under its disguise the wildest schemes may be inaugurated and the most extravagant sums may be wasted. Educational "graft" is perhaps the most excessive and most respectable "graft" on earth. There are office-holders, running up to the thousands, with high salaries, some of them, professing a high-priced specialty, or inspecting inspectors, or supervising the supervision of supervisors, and all these are fattening on the money of the people, while the hard-worked teachers are not properly paid.

Nowhere is this extravagance more evident than in vocational training. The equipment for

trades is immense. The average cost in the United States for teaching the five branches, commonly found in high schools, English, Latin, French, history, mathematics, amounted, three years ago, to $43.49 per pupil and the equipment-cost per pupil was $7.66; while for five branches of physics, chemistry, manual training, commercial and agriculture, the teaching-cost was $66.62 and the equipment-cost was $71.12. The average annual increase per pupil was for the first five, ten cents, and for the second five, one dollar and eighty cents, or eighteen times as much. See chapter, A Revolution in the High School. In Massachusetts, it costs $39.35 to educate each pupil for a year in the elementary schools, and it costs $88 for each high-school student; whereas each boy in the trade schools costs $316, and each girl $340 a year, and in the agricultural schools, the State pays $179,970 to educate 253 pupils. That is $711 a year for each, or about eighteen times the cost of an elementary pupil. This was the cost about 1917.

The position of teachers in trade schools is a sinecure. While our elementary-school teachers are swamped with large numbers, the trade schools have few for each, and from the nature of things will always have few. An elementary teacher in Chicago had eighty Russian Jews to teach in an elementary class. In Massachusetts trade schools, there is one teacher for every nine boys, and one for every six girls. The agricultural schools average seven pupils to a teacher. In Worcester, there is one teacher for every four

girls. At the same time, the high-school teachers of Massachusetts have each twenty pupils, and the elementary teacher each thirty-one pupils. In the crowded portions of the cities, no doubt the conditions of Chicago are duplicated.

It is surely unjust to the large body of our citizens to pay these extravagant sums for a privileged few, when the larger part of our school population is neglected. If "Americanization" has any meaning, it must at least give the essentials of education to all, before it permits a small minority in trade schools to profit at the expense of the ignorance and neglect of the vast majority. It is estimated by the Government that more than ninety per cent of our children never reach the high-school grade. More teachers at better pay are required for these elementary pupils. More careful teaching is required than ever before because now a large portion of pupils and of their parents are unable to speak English. Is this a time to indulge in experiments; is this a time to indulge in the extravagant expenses of trade teaching when ninety per cent of our youth are not receiving an absolutely necessary education in essentials? Surely trade schools are unjust to the elementary schools.

Trade schools are unjust to the trades. On what principle, or lack of principle, are trades chosen to be taught? The principal of the Vocational School for Boys in New York City says proudly (1919), "There are now thirty-three trade subjects taught, and of that number nine have been added in the last three years". Why

thirty-three? Why not 3,000? Massachusetts has more than 393 manufacturing trades listed in the Census of Manufactures for 1914, and if we add to that number the trades which use and distribute manufactures, who will tell us the complete number? Yet in the Massachusetts trade schools there are hardly two dozen trades taught. Worcester teaches about twelve trades, and does not even teach its most important trades. Supposing that these few trades are well learned, which may be doubted, why should the public be forced to supply apprentices for a few trades, at a heavy expense, to the detriment of the common good? The vocational schools are unjust to the trades not taught in them.

The Manhattan Trade School for Girls has a motley array of subjects. "Among those taught now", says an admirer in *Vocational Summary*, October, 1919, "as major subjects, always carrying with them the related subjects, are dressmaking, millinery, lamp-shade making, electric-power machine, operating on clothing, embroidery and straw; pasting-trades including sample-mounting, novelty-case making, French-edge making, beading, laundry work, cafeteria work, manicuring and shampooing". This would seem to be the climax or anticlimax of absurdity. Yet it is admired "because the last two enable the girls to care for themselves properly". And after all, why not? If the schools are to teach trades there is more sense in giving a course in manicuring and shampooing, which will be required by all, through life, rather than other particular industries which are

useful to a few for a short time. Should not the absurd unfairness of making the people pay for beauty-shops and barber-shops and haberdashery and millinery, be evident?

The futility of the vocational work is equally evident from the same article. The writer says, "Conditions in industry change very rapidly, because of the change in style, and lines which are good one year are out of date next season." The conclusion would appear to be: therefore do not try to teach in school what will be antiquated before the pupils leave. But, strange as it may seem, an opposite conclusion is drawn. Keep on changing in school; throw out the materials and machines, and bring in new ones even though you know that they will not last a season.

Consider the revolution effected in trades and industries by electricity, by the gasoline-engine, by the typewriter, by the automobile, by the linotype machine. A trade school of twenty years ago would be a collection of fossils today. There is not a month or week in which every live trade does not introduce some change and improvement, and by the time that invention could be explained and put into school it would be obsolete. It is a great blessing that America keeps out of a rut in trades. America has a large scrap-heap, but its size is the measure of America's progress in industry. Put America into a rut, stereotype its industries by schooling and you would, if it were possible, stagnate the trades. The trade school will not do that. They will buy new machines, new models, new permanent-wave machines, new

sets for manicuring, new shampoo soap, new vanity cases, and go on throwing away money in futile pursuit of the changeable.

The old theory of education was the only true one. To strive to adjust students to the changing multiplicity of life is impossible and leads to absurdity and injustice. Education in the past never attempted that. It did attempt to improve the individual; it kept open as long as possible for the individual every road to trade, to industry, to profession, to technical work. If the individual was incompetent through intellectual deficiency or through laziness or waywardness, he could be specialized into a trade in an educational sanatorium. But for the others, they were trained in mental operations which fitted them, not only for the labor of life but also for the leisure of life. By that education America has prospered. Minds were made flexible, versatile and adaptable, not stiffened into stereotyped specialties. By that education trades and industries prospered, because one man of brains is better for a trade and industry than a thousand machines. A live wire is better than an electric hand-iron. The education of all times produced live wires; the vocational trade schools produce hand-irons, which are of the model of 1900 when delivered.

WHY I AM SATISFIED WITH MY EDUCATION

ACCORDING to excellent authority, "It might have been", is a very sad sentence. Its application is manifold, but never perhaps is it uttered with more poignant regrets than when a man reflects on his years of schooling. He might have been better; school might have been better; teachers might have been better. I do not propose, however, to join this lugubrious chorus. I am quite satisfied when I look back upon my school days. I must admit that I can see much room for improvement in many ways, but all in all, the retrospect is satisfying. I did not appreciate or even think of the principles of my education, but when I did become acquainted with different theories of education and with its history, I felt relieved that I fared as I did. I now see that my education was conducted on correct lines, traditional indeed, and conservative, but satisfactory and rational.

I was educated under a system in which there was order and subordination. There was no indiscriminate mixture of various studies. I was initiated into the class system. There was very little of the departmental system, which is now in vogue. One teacher taught the class, and all studies were directed to one purpose. Some sub-

jects were principal, some accessory. Only a few can afford the luxury of a private tutor, who can, not always successfully, conjecture his pupil's needs and cut his training to suit. Montessoris are too scarce to go around, even if their multiplication were desirable. There had to be a choice of subjects, not for me but for many. There were not teachers enough to teach all the subjects with which life is filled. It was impossible for my teachers to foresee my vocation and my needs. I might change my occupation a dozen times. They could not provide me with information, which I would need in the future. They did not foresee the World War; or the building of the Panama Canal; or the rise of democracy in Europe. Even if they were prophets and knew my future needs, and the needs of a hundred others, they could not meet them. They had to educate for the greatest good of the greatest number. They did not give information, but formation; they did not deal chiefly with facts, but with faculties. They did not strive to make me and my fellow-students encyclopedias which would have to be re-edited every little while; they did strive to develop our brains. They gave us health rather than an anatomical chart, or the U. S. Dispensatory, or a catalog of patent medicines. Power and the production of power was their aim, and if their pupils became sources of power, they could apply their forces for light or heat or motion in endless and indefinite ways. I am glad they tried to make me a dynamo rather than a trolley car.

There was one thing that my teachers saw that I and all my companions would surely need in life and that was a trained mind and a power to express ourselves. We would have to think; we would have to write; we would have to talk, whatever we were destined to be. Baseball left us with trained muscles and a better carriage and other good points. Few have become professional players, but all are glad of their acquired strength though they may regret some unshapely fingers. My teachers followed a system which aimed at imparting power, even though the instruments of imparting it were set aside afterward. Grammar and dictionary might follow bat and glove to the attic, but the strength of mind and body remained.

There are few teachers and many pupils. Tutors can be specialists; teachers cannot. Teachers must look to the greatest good of the greatest number. My teachers now sought for me and my companions the best instruments to bestow upon us that good, and impart to us power. The experience of ages gave them an instrument; it had been perfected by use; it had been applied in their own case and they knew how to manage it, and as wise men, they took that instrument. Language, they found, was a universal need. No powers of prophecy were required to assure them that everyone of their students would require a head and a tongue and a pen for all his life. Language was the medium by which they would reach their students' faculties; language would be the means which their students would

use to express themselves. A faculty is perfect when it works properly. Its action may be called its expression. Perhaps the eye hidden in perpetual darkness may be perfect, but we have a sure test of its perfection only when it sees. Language alone is the adequate test of the mind's expression. When a student can express himself in writing or speech, then a teacher has an index to the faculties he is training. Language too is an exercise of the mental faculties. A man may run a machine or play an instrument by automatic habit, but how can he talk or write without thinking? The trainer of a crew reaches the proper muscles of his candidates by a rowing-machine; the teacher reaches the faculties of the mind by language. Language is the test of thinking; language involves the task of thinking; language, therefore, while being the greatest good of the greatest number and the traditional and long perfected instrument of education, is in itself the best means of education.

But all this, you will say, seems like establishing a truism. Language is used from kindergarten to university. True, but I am speaking not merely of the mastering of one's language for use, but of its systematic study as a means of educating, of exercising the faculties and of imparting formation and power. The course of studies under which I was brought up recognized language as a principal subject, the classical languages, Latin and Greek, and the English language. I am satisfied that my faculties were properly exercised by that course. I was made to study

these languages, to master the art of expression, to write and to speak, to model my compositions upon the masterpieces I studied, in a word to go through the three stages of mastering an art, analysis or study, crisis or appreciation and synthesis or composition. We were made to study Cicero, not in order to learn Roman history, law or archaeology, although I saw enough of these to understand my author, but as we were not all to be historians, lawyers, or archaeologists, we were not sent off on these tangents, but our studies were concentrated upon the art of expression. If the great Newman acknowledged Cicero as his master of style, we might learn something from him. His letters taught us the art of letter-writing; his essays led us to learn that art; his speeches led us on to the high art of oratory. Perhaps his topics were not always of paramount interest; his material not always the best, no criminal lawyer has the best material; but the marvelous command of language, shown in letter, essay, treatise, and speech, a command which practically created a new language, made him a fit instrument to teach us the art of expression and through that educate our faculties.

Cicero's art of expression had been formulated by himself and had been studied for centuries. It was ready for class use. Cicero wrote in a foreign language. To get to his ideas, we had to halt upon the threshold of expression. In English we take our grammar, our rhetoric, and all the qualities of style for granted. It is an effort to pause upon the expression, but in a foreign language one

must pause upon the expression. Wordsworth in "Michael" speaks of an object which you might "see but notice not." A foreign language makes us notice what in our own we only see. No modern foreign languages gave us the art as did the classic languages or, if they did, the art had not been mastered and systematized for school use as had Greek and Latin. A translation would not do, because a translation, even when perfect, which it never is, stripped off the expression and left the thought; it gave us the metal without image or superscription; it almost put the paint back on the palette and the canvas on the roll.

Perhaps an example of the way my education was conducted may show how this system did not degenerate into dilettanteism or mere philology; how that it was more useful than any information could possibly be; how that it did not unroll landscapes, but perfected my eye. My teacher took a sentence of Cicero or Demosthenes. Each word was analyzed separately. I found that no word was a dead thing. It came from a living soul and led back to a living soul. It had the highest kind of life. My teachers did not compare a trilobite with a second aorist, but if they had to choose they would have taken a human soul in preference to a petrified animalcule. If the second aorist were traced back to its etymology and first coinage, it would be shown to be the embodiment of some picture of the imagination, paleontological poetry, if my geologic friend will permit. The sounds of the second aorist are the records of a speech which Brugman would expand into a science. The form,

if irregular, would give grounds to Curtius for a splendid theory of language. Its inflexion would be an introduction to the science of grammar, and after a hundred other advantages, which it would confer in Homer, Plato or Demosthenes, its language finally would be called upon to give a name to the rocky silhouette of a bug, our utterly extinct friend, the trilobite.

To continue my teacher's lesson in the sentence. After the complete analysis of the word, we were ready to apprehend its meaning. Cases, gender, number, person, mood, tense were all so many strokes of our mental rowing-machines. We were learning the art of thinking clear-cut ideas. Then came discrimination in choosing the right word for solution. The mind still kept rowing. It chose; it tasted sweetness of thought and dress. Perhaps the idea was concrete or metaphorical, thereupon the imagination had to do some work to see the object depicted. Then when each idea was apprehended and visualized, the logical connection of ideas had to be affirmed or denied. We were asked to verify that affirmation or denial, and the faculty or function of judgment joined in the exercise. Again the sentence was shown to be an organic and integral portion of the paragraph. At this point inductive and deductive logic participated in the gymnastic training. Comprehension and sustained reason were tested by wider ramifications into the analysis of whole paragraphs, poems, speeches, plays. Nor was the ear neglected. The balancing of phrases and clauses, the variety of sounds, the ease and melodiousness

of utterance, were taught to the ear. At every moment there was work for the faculties of the mind, not filling up simply of the memory. The powers of observation were drilled and made prompt by this continual cry of "Stop, Look and Listen."

And all this not in one language only. The speeches of Cicero, Demosthenes and Webster gave us the art of oratory; the epics of Homer, Virgil and Milton trained us in the appreciation and expression of the beautiful. Shakespeare illustrated Sophocles, and Sophocles Shakespeare, and so of all the others. We were subjected to a concentrated and unified exercise of all our faculties under the guidance of one master. We had something useful for every pupil, for every occupation, for all time; we had faculties which could act; we had power.

Our teachers did not leave us here. They supplemented this staple teaching by the more austere logic of mathematics. They initiated us into history. They could not do much more, at first, than impart interesting facts to excite our curiosity and extend our reading. When our powers were developed, we would take up the philosophy of history. Our education for the high school and for part of the college was chiefly artistic in scope. It was directed to make our faculties work effectively; but that once accomplished, then the various sciences, which had been perfected as a means of education, were brought to bear upon us. Chemistry and physics, astronomy and geology were introduced not to

make us scientists of this kind or that, but to equip us with a modicum of information necessary or useful to all. Finally came the crown of our education. We took up the study of philosophy. We got our bearings, looked back over our path and systematized what information we had gained. We faced the huge task of making the atlas of all truth, and so we took our stand upon a sweeping eminence where we could see all truth from its first beginning to its uttermost limits. We divided its kingdoms and warred over its shifting territories and bounding lines. Then the great principles of truth and good, of beauty and virtue, were studied and appraised. Ethics, sociology, political economy, religion, science, all were touched on, not as specializations, not as smatterings, but mapped out and fitted into a general scheme and theory of knowledge.

With that education, I am in general satisfied. Some of the students devoted themselves to teaching and have not learned much more of science and mathematics. Others have developed their sciences and dropped languages. Some may have let go from their lives the further prosecution of the studies they took up in school and college and may have left only an educated man's information about them. Not one, however, has dropped, and he could not do so, the voice and pen, the imagination and brain, the reason and heart, which were given him by an education where language and the classics were a principal subject for the greater part of his course supple-

mented by mathematics and history and crowned by philosophy. The student was satisfied and cried, "Come, life, and see what you can make of me!"

18101